ARMY

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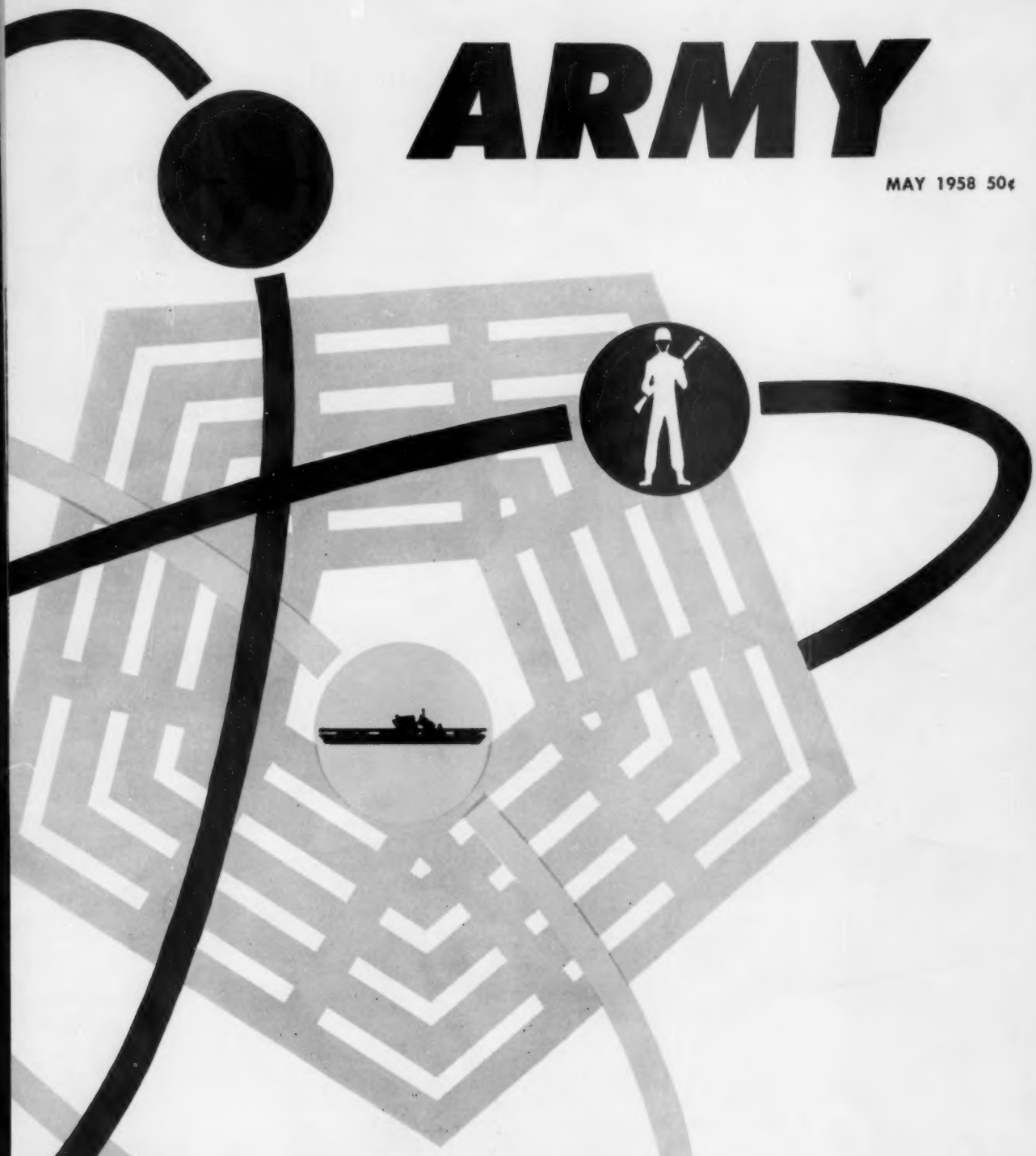

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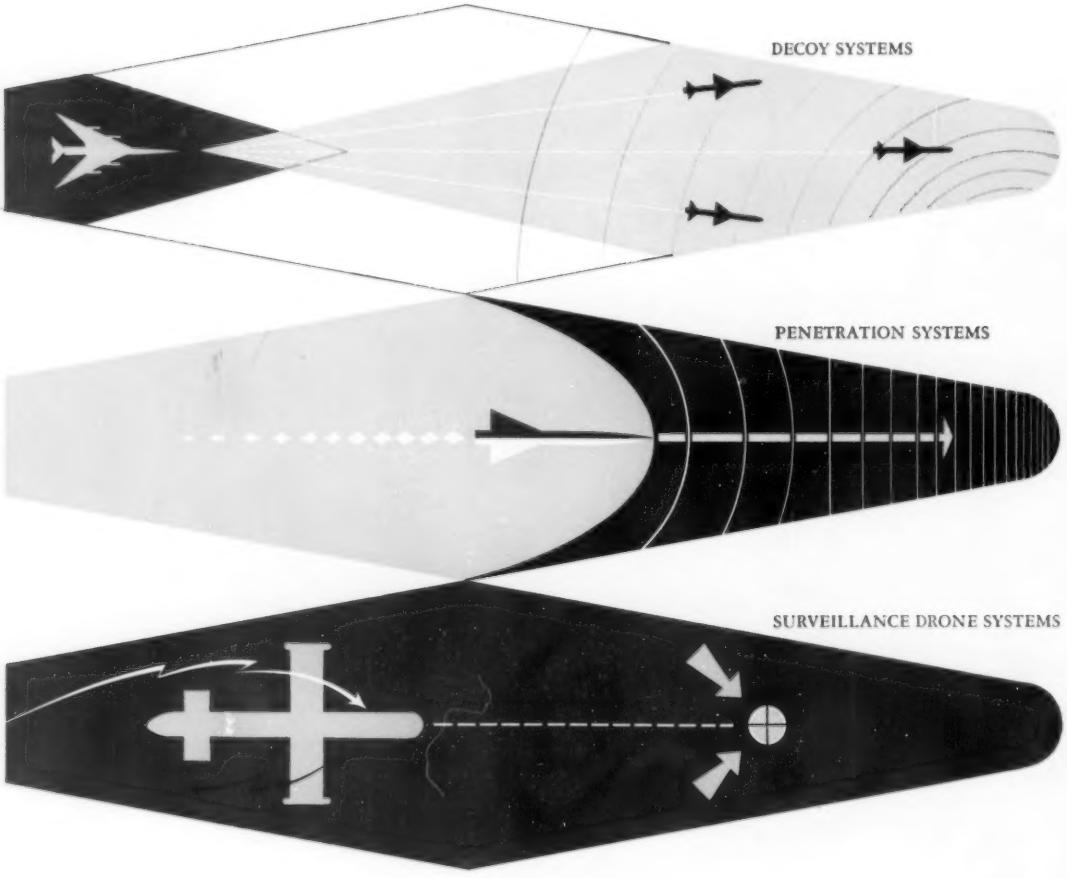

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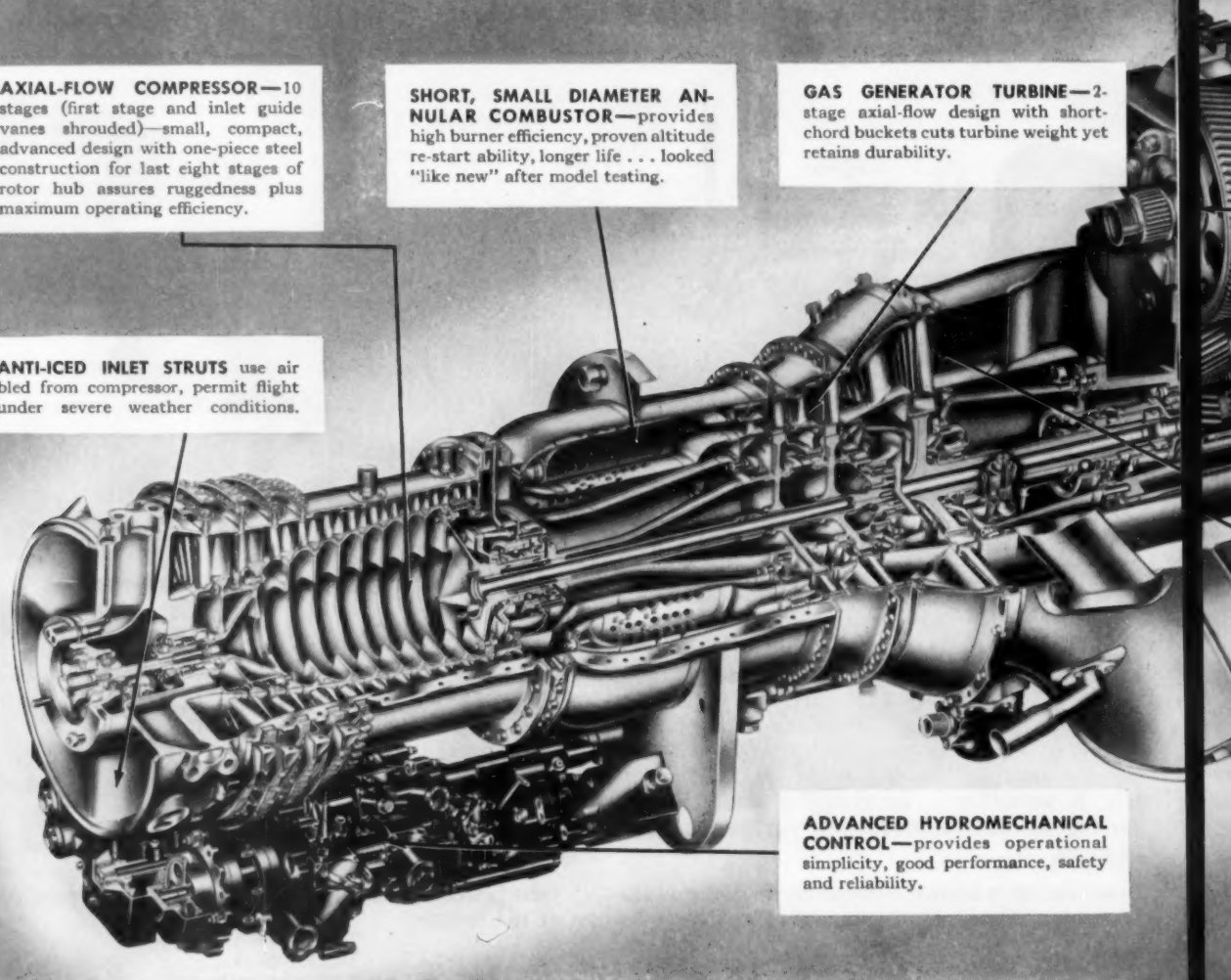
WHY T58 IS BEST

AXIAL-FLOW COMPRESSOR—10 stages (first stage and inlet guide vanes shrouded)—small, compact, advanced design with one-piece steel construction for last eight stages of rotor hub assures ruggedness plus maximum operating efficiency.

SHORT, SMALL DIAMETER ANNULAR COMBUSTOR—provides high burner efficiency, proven altitude re-start ability, longer life . . . looked "like new" after model testing.

GAS GENERATOR TURBINE—2-stage axial-flow design with short-chord buckets cuts turbine weight yet retains durability.

ANTI-ICED INLET STRUTS use air bled from compressor, permit flight under severe weather conditions.

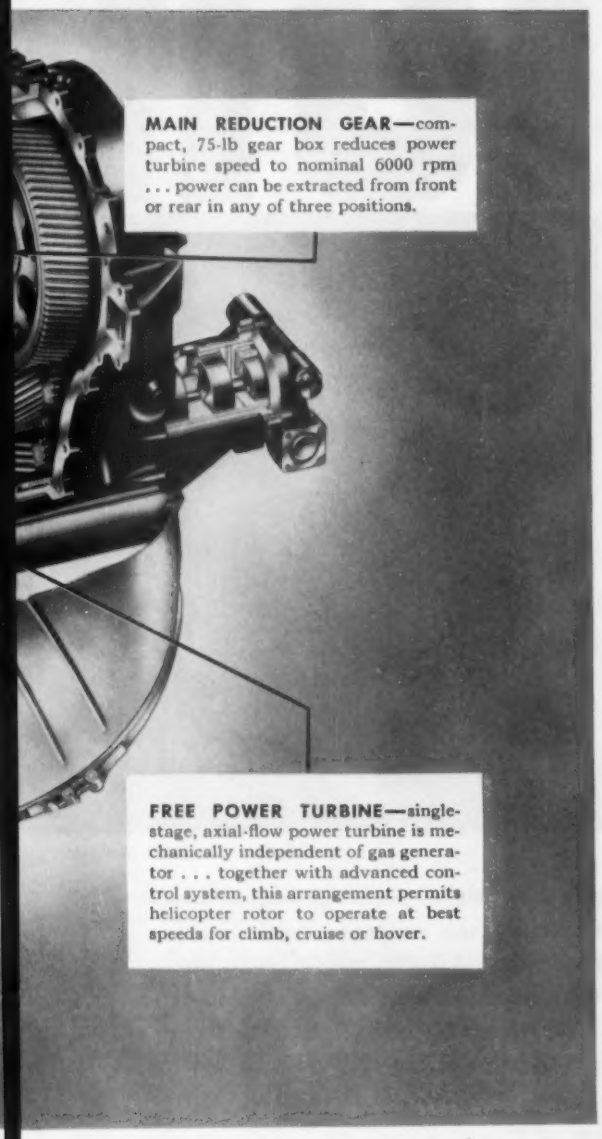


ADVANCED HYDROMECHANICAL CONTROL—provides operational simplicity, good performance, safety and reliability.

T58 FLIGHT TEST PROGRAM began in January 1957 in Sikorsky HSS-1 (left), was recently extended to Vertol H-21D (center) and will include the Kaman HU2K-1 (right). Comprehensive flight, rotor and cell tests have already proven the engine's performance, reliability, control stability and power-splitting ability.

150-Hour Test—is one more reason . . .

FOR HELICOPTERS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RUGGEDNESS OF THE T58 engine design was proved by its exceptional performance under the severe accelerating and decelerating, stops and starts, loads and overloads. Official test results show:

- All required 75 starts exceeded specification guarantees. Typical acceleration time to idle speed bettered guarantee by over 40%.
- All engine throttle burst times were well within guarantee limits. Acceleration times from idle to 100% power were four times better than guarantee.

ADVANCED AERODYNAMIC DESIGN. Engine cut away at left shows the advanced design features that make possible the T58's exceptional performance and ruggedness . . . features that truly promise new levels of military and commercial usefulness for helicopters.

For more information about the T58: call your local G-E Aviation and Defense Industries Sales Office, or write General Electric Company, Section 233-10, Schenectady 5, N. Y.

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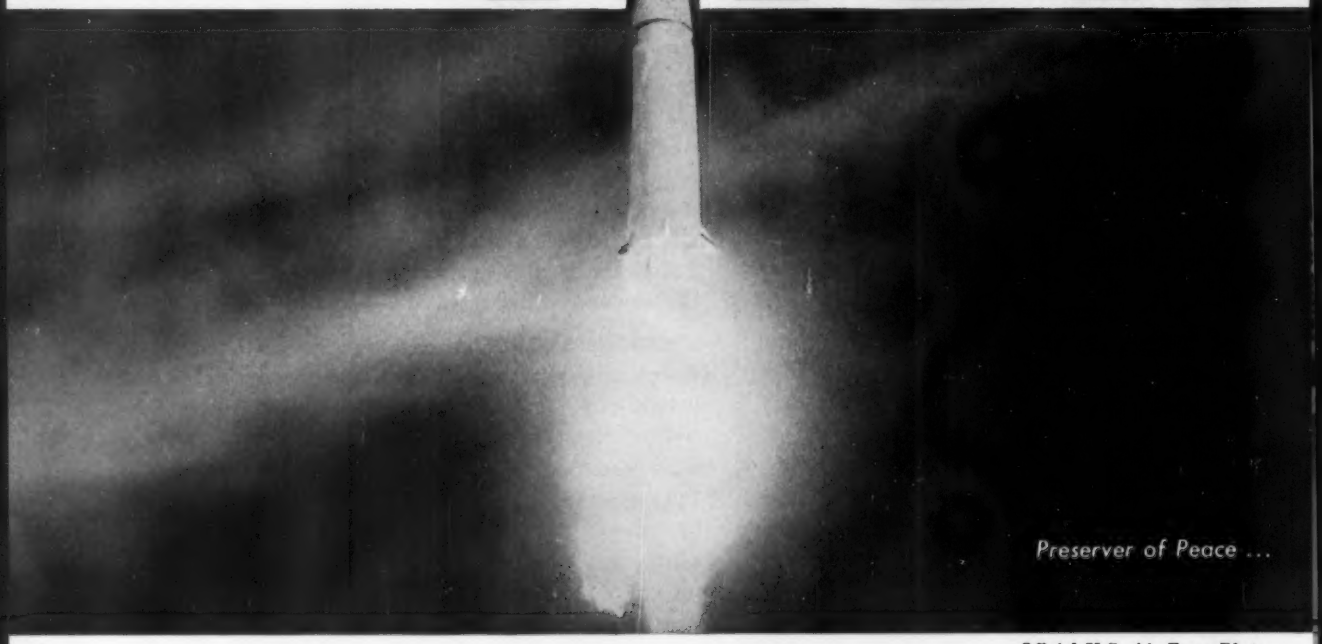

Official U.S. Air Force Photo

The very heavens shake with the thunder of some 135,000 horses as Thor streaks across the sky at 10 times the speed of sound. Designed by Douglas Aircraft to deliver total destruction to targets as far away as 1,500 miles, Thor represents the Air Force's striking arm where ground objectives are concerned. For this surface-to-surface intermediate range ballistic missile, with its inertial guidance system, RCA has developed and is supplying electronic units to help Thor declare its mission: the prevention of war.

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ARMY

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Vol. 8 • No. 10 • May 1958

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ARMY is a professional military magazine devoted to the dissemination of information and ideas relating to the military art and science representing the interests of the entire Army. *ARMY magazine strives to—*

Advance man's knowledge of warfare in the fields of strategy, tactics, logistics, operations, administration, weapons and weapons systems.

Advance man's knowledge and understanding of the soldier as an individual, as a member of a trained unit, and as a member of the whole Army; emphasizing leadership, esprit, loyalty, and a high sense of duty.

Disseminate knowledge of military history, especially articles that have application to current problems or foster tradition and create esprit.

Explain the important and vital role of the United States Army in the Nation's defense and show that the Army is alert to the challenges of new weapons, machines, and methods.

Advance the status of the soldier's profession.

—*AUSA By Laws, Par. 13 Article II*

ORGANIZATION & STRATEGY

The Control of Men, Money, Missions 21

The President's Plan of Organization 30

Let's Start with Conventional War .... *Col. Bennett L. Jackson* 52

TRAINING & EQUIPMENT

Shooting Copters ..... *Lt. Col. John W. Oswalt* 39

Night Fighting ..... *Lt. Col. Arthur R. Datnoff* 46

Massed Fire and the FDC ..... *Riley Sunderland* 56

MEN & METHODS

Public Relations ..... *Brig. Gen. C. V. Clifton, Jr.* 43

SOP for Investors ..... *Gen. John E. Dahlquist* 49

Pentomic Age Telephony ..... *Col. Charles W. Gibbs* 60

ASSOCIATION OF THE U. S. ARMY

Notes from Your AUSA CP 78

Regional Activities 78

DEPARTMENTS

The Month's Mail 8

The Army's Month 17

1958 Reunions 63

The Month's Cerebrations .. 64

The Month's Reading 67

Irons in the Fire 70

The Month's Books 72

THE MONTH'S COVER

Design by Lou Nolan.

ARMY is published monthly by the Association of the United States Army. Publication date: 25th of preceding month. Publication, Editorial and Executive Offices: 1529 Eighteenth Street, N.W., Washington 6, D. C.

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Entered as Second Class Matter at Washington, D. C., additional entry at Richmond, Va., under the Act of March 3, 1879.

Articles appearing in *ARMY* do not necessarily reflect the opinions of the officers, or members of the Council of Trustees of the Association of the U. S. Army, or the editors.

RATES. All new memberships and subscriptions payable in advance. One year $5; two years $9; three years $12. These rates apply to libraries, civilian groups or activities, other groups not eligible for membership in AUSA, and foreign subscriptions (all foreign subscribers $1 per year additional for postage). For other rates write Circulation Manager, 1529 Eighteenth Street, N.W., Washington 6, D. C.

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ARMY

Freedom's defense has reached a new frontier—Outer Space. That is why we need new weapons—missiles ...and men in missile-like planes.

Already America's giant missiles hurtle into space—exploring the new frontier, guarding its ramparts.

And hand-in-glove with missiles are our new manned weapon systems. Compressing years of progress into months, America's military and civilian engineers are jointly pushing our new defenses to completion.

Americans in Outer Space

Today a few chosen pilots are preparing themselves. Donning the new space suits, they sit in altitude chambers, or whirling centrifuges, testing man's reactions to a savage new environment. Their plane, the rocket-powered X-15, is being readied.

The X-15's mission is to take a man into space... and to return him to deliver his report. The secrets he brings back will be shared by the Air Force, Navy, and National Advisory Committee for Aeronautics, joint sponsors of the project.

The sinews of space flight

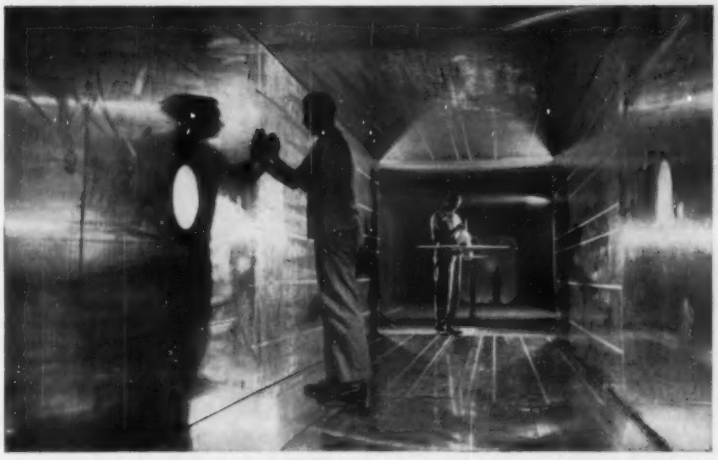
The X-15 is the outgrowth of new technologies developed by North American and its divisions—in guided missiles and supersonic aircraft—in automatic controls and rocket engines. Each is a vital root of the new space flight technology.

NAA's Rocketdyne Division makes rocket engines for the Air Force's Atlas and Thor missiles, and for the Army's Jupiter and Redstone. In fact, every major missile successfully launched in America in 1957 was powered by a Rocketdyne engine.

The Autonetics Division creates automatic control systems for both aircraft and missiles. Only yesterday these tiny fail-proof "brains" were rare technological triumphs. Yet today Autonetics makes them in quantity—with complete reliability.

Weapons—manned or unmanned

Like the Armed Services, North American believes both manned and unmanned weapon systems have their place. NAA's Missile Development Division, backed by 10 years' pioneering missile research, is at work on the GAM-77 advanced air-to-ground missile for the Air Force B-52.



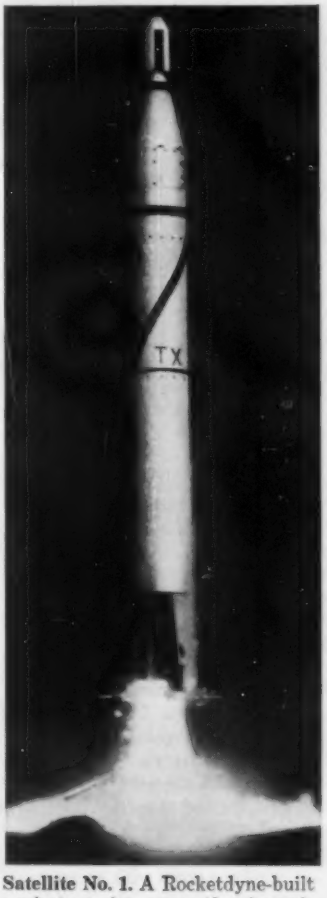
Space Age wind tunnel tests scale models in a 2,500-mile hurricane. It's first of its kind to be built with private funds.

At the Los Angeles Division are two manned weapon systems. The 110A will reach any place on earth at 2200 mph and return to strike another day. The F-108 interceptor's very-long-range radar and atomic missiles will make it lethal to manned bombers and some missiles. It will be a flexible weapon, able to strike at trouble where it starts, before it spreads.

From defense, the arts of peace

North American has not confined its efforts to defense alone. During the past decade it has made great forward strides for the good of all men. The Peaceful Atom, for example, is the field of NAA's Atomics International Division. This division has successfully proved out two nuclear reactors to produce electrical power, both major advances in the drive to put atomic energy to work for mankind.

Today, in North American and its divisions, you'll find as potent a combination of scientists, engineers, and production men as any in American industry. Because they are constantly forging ahead into vital new technologies, their work holds immense promise for science and industry.



Satellite No. 1. A Rocketdyne-built rocket engine gave the Army's Jupiter "C" satellite the critical first-stage boost toward its orbit.

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THE MONTH'S MAIL

To the Point

● Hurrah for MSP Reimers!

LT. COL. WALTER L. MILLER
Fort Benning, Ga.

Army Needs Public Support

● The news made by the Senate Preparedness Subcommittee and General Gavin's decision to retire lead me to believe that now is the time for plain citizens to support our Army.

I am interested in becoming an Associate Member of the Association of the U. S. Army. Please have your office mail to my address an application and regulations.

JOEL A. FRIAS
Chicago 25, Ill.

Lead on Queen of Battles

● In the February issue there appeared a letter concerning the origin of the term Queen of Battles used in reference to infantry.

I too was curious about this term when I found myself in that branch after being drafted, and while browsing in the Fort Hood Special Services Library I came across a book dealing with the history of France. In the section dealing with the Hundred Years War the author described the Battle of Crécy and stated that the infantry here earned the title which Napoleon was later to apply when he said *"L'Infanterie est la reine des batailles."* So it seems the term can be ascribed to Napoleon.

I have tried to trace this book and have looked up various references to Napoleon, but so far I've been unable to come up with anything definite. Anyway, I'm positive that the historian credited Napoleon with the term Queen of Battles, and perhaps the quotation can be found in a collection of his writings.

I hope I have been of some help and that another person with access to a large library can take up the problem from here.

PVT. THOMAS E. NORTON
1st ARB, 54th Inf
APO 176, NYC

Firepower for the Assault

● As a former company commander, I can only say "Hats Off!" to Major Raymond H. Ross for his logical discussion of fire power, or the lack of it, in the battle group [January 1958].

Throughout the history of modern warfare the search has prevailed for the ideal infantry support weapon that will provide the happy medium between firepower and mobility. At times this search has been successful. Such weapons as the 60mm mortar, the 3.5-inch rocket launcher, and the 57mm recoilless rifle have proved their value in offensive combat when employed by trained soldiers. These weapons have been largely overlooked in the pentomic structure, without adequate replacement. The infantry, because it is foot-slogging, is expected to appear at the unexpected place at the unexpected time, the terrain between line of departure and objective notwithstanding. The 106mm recoiless rifle does not fit into this scheme, nor is it needed. It is primarily a tank destroyer, and no tank ever set track on the terrain I have seen in training and in combat. The 81 mortar is likewise not a versatile offensive weapon. Echoing Major Ross, our battle group sadly lacks an antitank punch in the assault-gun platoon and superior fire support from the mortar battery.

The solution is simple. Give the infantry company an improved recoilless weapon that can be hand-carried. Replace the two 81 mortars with six 60 mortars of greater firing capabilities and with improved shells. The assault will then have at all times the required fire support without being handicapped by the cumbersome 106 RR and 81 mortar. Then assault platoons and fire-support elements will be prepared and physically able to carry the objective with the necessary energy and firepower.

Arm the battle group's assault-gun platoon with tanks and beef it up with the 106 RR. Where possible, these 106s could be farmed out to rifle companies. Where this is not possible, they could be retained as part of the group commander's antitank punch. If the problem is one of enemy tanks, then this platoon, aided by assault infantry, will provide a formidable AT force. Against rugged terrain and an enemy force composed largely of foot troops, our infantry company armed with the 57 RR, the 60 mortar, and the 3.5-inch rocket launcher (for sporadic antitank work) can win and go on to the objective without slackening its pace.

The team-up of the antitank platoon and the 106 RR sections with the assault infantry should be done by using the heavier weapons' capabilities as the yardstick—not the capabilities of the infantry. It is senseless to burden a highly mobile infantry company with such weapons. Finally, the mortar battery should be given a weapon, in sufficient numbers, to enable it to provide firepower at least comparable to the direct-support field artillery battalion.

To win tomorrow's battle we must use economy of force, firepower and mobility to their maximum extent. If we are to succeed we must be mobile in thought, in armament, and in transport, yet completely flexible on our training fields in preparation for tomorrow's unfamiliar battlefield.

CAPT. H. J. NACHTSHEIM, JR.
JUSMAG, Thailand

Rebuilding

● In "The Need for a Million-Man Active Army" [March 1958] you explained five things that should happen if we had a million-man army.

It seems to me that if we increased our Army it would help a little in aiding our economic recovery. Along with this, if we speed up our rebuilding at all Army posts, it would give work to a lot of people. All the posts I have seen still use old wooden buildings.

Should M-day fall upon us, where would we billet all our troops unless we used old, condemned buildings?

Our dependents' housing program is progressing rapidly. Why not make the barracks where single men live as modern as the others?

MSGT. ROY B. MILLS
Fort Knox, Ky.

Helicopters in Disaster Relief

● Recently the newspapers carried accounts of the contribution of large transport helicopters in rescuing stranded persons and in helping restore utilities disrupted by unseasonable storms. Similar accounts of helicopter rescue operations followed Hurricane Hazel and other emergencies in recent years.

Yet, in each instance, the services of these essential aircraft were obtained only because some agencies were willing to lend machines and crews. For example, during the March storm the Vertol Aircraft Corporation, manufacturer of large transport helicopters, made available its only commercially licensed demonstrator and obtained permission from repre-

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The Beaver ½ Ton Flying Truck

1955
The Otter 1 Ton Flying Truck

1958
The Caribou 3 Ton Flying Truck

De Havilland Aircraft of Canada STOL aircraft, designed to meet Canadian and C.A.A. requirements, have been adopted by the United States Army, civil and military operators in fifty-eight countries.

58-3

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sentatives of the Swedish and French governments to use completed helicopters which were awaiting delivery to these customers.

These emergencies created by Nature always bring to mind the question, "What would happen in the event of an enemy nuclear attack?"

There are no commercially operated transport helicopters in the entire Commonwealth of Pennsylvania. The one or two such craft owned by Vertol would no doubt be placed at the disposal of emergency agencies. They would be invaluable but entirely inadequate. In our age of miracles, the civilian populace finds itself woefully lacking in helicopters for emergency service.

It appears obvious that we should commence now the action to assure adequate numbers of essential transport helicopters for service in future emergencies. A logical method of providing such service would be the organization and equipping of at least one Army National Guard or Army Reserve transport helicopter company (with twenty-one transport-size helicopters per company) near each large city.

COL. FRANK K. MACMAHON
Media, Pa.

● *We were proud to note that the Army came through quickly during the storm Colonel MacMahon mentions. Viewers of TV newscasts from Baltimore, which was hard hit, saw helicopters and crews, provided by Second Army, delivering civilian reconstruction and relief parties to stricken areas. Also Army trucks helped remove snow in metropolitan areas.*—THE EDITORS.

Critique of Aktong-ni

● Colonel Welch's "Encounter at Aktong-ni" in the March issue struck me the wrong way. It relates the experience of a green artillery battalion just hitting Korea. It wasn't so much what they did on that recon patrol as how they did it that leads me to ask some questions.

(1) Five jeeps and a ¾-ton carrying eighteen men in all. This means six vehicles were carrying an average load of three. Granted that some jeeps and three-quarters are equipped with mounted radio, but even so a recon party of eighteen ought to squeeze into two jeeps and a three-quarter, or three jeeps and a three-quarter at the most. Kind of looks like excessive use of vehicles.

(2) About three miles northwest on a mountain anywhere from fifty to three hundred enemy. Right away officers and men gathered around; any moment enemy rounds could come into the area. They are possibly under observation right now, but everyone gathers around, don't disperse, don't spread out.

(3) So we decide to be heroes. Well, those things are decided on the spur of the moment, and again we are commenting on the how, not the what or why.

(4) I send one jeep carrying two of my experienced officers one hundred yards ahead. Two of my experienced officers—not one, but two. Don't leave one behind in the village with a vehicle and some men; don't spread the experienced officers out among the inexperienced men. No, send out two ahead with one driver.

(5) And we are riding all the way around the bend. We haven't parked our vehicles and sent ahead a small scout party. No, we come barreling up with our six vehicles as though we are heading for a drive-in theater.

(6) By sheer panic the enemy had deserted. They had been surprised, and this will make even the best men panic. But what preventive measures do we take to avoid surprise and panic among eighteen gallant knights looking for the windmill? The shoe could have been on the other foot, and what would we have lost? A battalion CO and two or more experienced officers.

(7) And now the crowning glory. No one had suffered even a scratch; no prisoners were captured. Yes, we did destroy enemy weapons, but carefully. I gave instructions that each officer and man who had been with me would be recommended for the Bronze Star, born of an encounter that was hardly a fight—indeed almost an anticlimax. Man, oh, man! If the award was for heroism, meritorious achievement, or meritorious service, then every soldier in Korea who washed a messkit should receive the Bronze Star. Come to think of it, the awarding of medals being such a farce, I guess they did.

LT. JACK C. MUSTERMANN
Englewood, N. J.

● *We can't accept all of Lieutenant Mustermann's criticisms. Some may be the result of the fact that limitations of space prohibited Colonel Welch from going into detail.*

(1) Three is about all you can get into a radio-equipped jeep with any comfort or readiness for action. More could have been squeezed into the three-quarter; but that mounted a machine gun with ammo, surveying equipment, spare gas, and other items. It is (or was) SOP on artillery recon for each battery CO with his recon sergeant to move in his own jeep, which accounts for three. The battalion commander had one with driver and interpreter; the S3 and S2 were in the other.

(2) Three miles was safely out of range of the enemy party armed only with small arms as reported by natives who had seen them.

(3) The CO had to instill some sense of combative instinct.

(4) The S2 and S3 were the two experienced officers sent ahead. The three-quarter was the only vehicle without an experienced firing battery CO.

(5) Only the advance jeep went around the bend. The rest were held back until it reported and, at the last turn, yelled for help. Maybe that wasn't made clear in the narrative, or that each hill was explored first.

(6) Colonel Welch's men knew the enemy was somewhere ahead; the enemy didn't know of the U. S. force. The lead jeep, with several stops for reconnoitering, provided adequate assurance.

(7) No commander antagonizes his troops by recommending decorations for them, even if he is turned down higher up, as he was. Later the decision was reversed. Decorations were awarded in Korea for action which took much less courage than these soldiers displayed on their first day.—THE EDITORS.

FSCC's Job is to Plan

● In "Pentomic Counterfire Methods" [March 1958] Lieutenant Stanley C. Hokanson gives the FSCC the mission of predicting the location, and of taking under fire, fleeting one-shot targets. In amplifying on how this is done, he has the FSCC maintaining maps and files "to develop order of battle information, terrain analysis, and surveillance missions." He further states that the division FSCC should be a combined counterfire and target acquisition agency with priority on the use of all means of combat surveillance. All information gathered by these means, such as fixed- and rotary-wing aircraft, aerial TV, infrared, and radar, according to Lieutenant Hokanson, is to be transmitted directly to the division FSCC.

This concept suffers from several defects. In effect, Lieutenant Hokanson has made the commander's intelligence function a responsibility of the FSCC. He is correct in stating that counterbattery fires based on after-the-fact detection and location of enemy means of delivering nuclear fires may mean tactical suicide. Locating enemy nuclear delivery means before they open is vital—and extremely difficult. It is more than just a job for a division forward observer, either on the ground or in an aircraft. We can safely assume that enemy nuclear delivery means will be placed in depth and well camouflaged. Any effort to locate them must integrate all means of combat surveillance with all other collection systems such as clandestine sources, communications intelligence, POW interrogation, and resources available at higher and adjacent headquarters. The information obtained must then be combined with a thorough knowledge of the area of operations, enemy tactics, and doctrine. In a few words, it is the job of G2, who of course must keep the FSCC informed of developments so the FSCC loses no time when the commander or

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G3 asks for recommendations on the method of attacking a target.

Apparently Lieutenant Hokanson misunderstands the basic function of the FSCC, which is not an operations center. It cannot be so long as our doctrine calls for the artillery commander to be in direct control of the FSCC, and the G3 and G2 operations are not within it. The need for an operations center is an entirely different matter. The FSCC exists only to coordinate the means of fire available to the commander. As its name connotes, the FSCC is a coordinating agency and not an operating agency, so its primary job is to plan. Giving the FSCC operational functions results in loss of command reaction time by establishing in effect a new staff layer that in part usurps some of the functions of the general staff.

LT. COL. IRVING HEYMONT
Fort Leavenworth, Kans.

A Rough Time is Expected

● Hats off to Sergeant Ackley [March 1958]! As a product of the Old Army I have long deplored the Scout troop approach to handling basic trainees. I am reminded of my own recruit experience wherein I underwent exactly what Sergeant Ackley proposes. From the time I was sworn in (1 July) until payday (31 July) I saw only one officer. My squad leader was a PFC and a grizzled buck sergeant ran our training program. We didn't leave the company area for two weeks, and for the next two we went to the PX and to the movies only in formation. I have never forgotten that training and indoctrination.

I also recall that I *expected* a rough time, and I got it. From hindsight, it seems that my (and my fellow recruits') overriding fear was that we could not measure up to being a man. The old sergeant harped on this subject, and to us his most insulting epithet was "You dumb kid" or "You three-year-old." We were also told that we were quarantined because we were not ready to associate with soldiers until we had enough training to act like one. We were also denied class A uniforms for the first two weeks. All were anxious to measure up as men and soldiers in the sergeant's eyes, and to be accepted by the "veterans."

This isolation and stern discipline made a man of me and my fellow recruits. The majority of our group became officers less than three years later, and several are still in field grades. Our group was not unusual. We were simply started right, and developed right within our individual capabilities. What was good for us should be good for all.

Again, I say three cheers for Sergeant Ackley!

MAJOR ALEX HACKER
Fort Ord, Calif.

Simulate Until You Get It

● I read in a Sunday paper that a National Guard division had sought permission to take up the Pentomic organization and had been turned down because of shortage of the new super-super weapons and vehicles.

Back in 1940-41, many of the present Pentagonians were junior officers or field officers harried by the task of setting up a new divisional structure. Being short of trained men and weapons, they armed soldiers with crossed sticks labelled "60-mm mortar" or "81mm mortar," or trucks with signs "This is a tank." They were ridiculed, but they and their men learned the lesson the *Reichswehr* had learned years earlier: if you ain't got it, or can't get it, you can imitate it in maneuvers. The smart man can learn and the 8-ball can at least see where the real McCoy can go. Now it puzzles me greatly why the hell their memories do not go back to the maneuvers of 1940-41.

We can't do a lot of the Buck Rogers tricks called for by flying platforms and such, but we can simulate the mechanical mule with its cousin, the jeep. A medium tank can simulate a Scorpion better than a Scorpion can, except for airlifting. For Guard units, that last is out anyway, unless you issue a skyhook for use on the inadequate fields found at summer camps. Our present weapons of similar type can double for the new T-9000E1 and at least fire, a great advance over the Louisiana and Carolinas stovepipe.

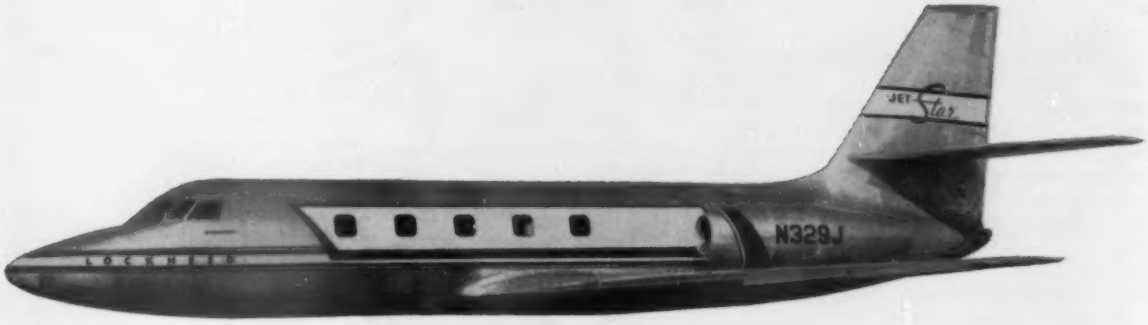
It can be safely assumed that airlift available to the Army in case of trouble would pick up something the size of Task Force Smith and waft it off to some other Osan, where it could be written off. So why not take the units we have and set up for faster movement, and forget the airlifting for all hands? Until someone invents a cheap lighter-than-air tank, the Army will be using the dirty end of the budget stick anyhow.

Organization and equipment mean a lot, but they are not everything. Look back to the raider units of World War II and the damage they did with little stuff and few people. Popski's Private Army, for one, whose main task was scouting. They worked off some neat tricks on the Germans in the course of their recons.

Kindly put in for me a requisition for a few gross of smart leaders, to be issued as required.

Meanwhile, how come the NG and USAR are not getting lined up on the new ideas? We had the same mess in 1940-41 also. The Reds have enough advantages over us as it is, without presenting them with a scrambled-up army reorganizing as we gallop frantically to some presently unheard-of battle station.

WO JOHN P. CONLON
Newark, Ohio



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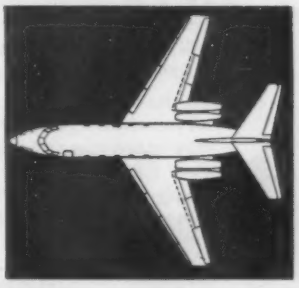

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Commander and Staff: One Mind

● Major Tooley's letter in the March 1958 issue refers to a case where a special staff section "was organized to function at general staff level for the maneuver" because its effectiveness "would have been hindered had a set-up subordinating the signal officer to a general staff section been adopted." He cites the case as being "symptomatic of a growing abuse of the existing staff system," and says that "a complete reexamination of our staff system and staff training and its implementation is indicated."

A conflict between special staff and general staff has been inherent in our system since its inception, as a perusal of Maj. Gen. Otto L. Nelson's *National Security and the General Staff* makes quite clear. "Keep the general staff out of (special staff) operations" has been the cry for decades.

I made the "reexamination of our staff system" during the thirties and forties as part of my avocation, the study of organizational theory and practice in general. At the same time I had experience as a special and a general staff officer, as chief of staff, and as a commander using general and special staffs. My experience, coupled with an exhaustive theoretical study, led to two important findings. Our "staff system" is not a system; it is an arbitrary pattern which must be made to work; and our "staff system" has no principle to rest upon or to emanate from.

The pattern of the "functions of command" to be entrusted to assistant chiefs of staff was a personal, empirical determination by General Pershing in World War I while our technology and specialization was just emerging from an agrarian civilization. When he became Chief of Staff he established his pattern throughout the War Department, top to bottom. Since then, the high headquarters has experienced a series of reorganizations in an effort to change the pattern at the top. The headquarters of the Department of the Army has, for almost twenty years, been in a position of saying, "Don't do as I do, do as I say"; it continues to prescribe the "system" for subordinate organizations but not for its own.

There are, however, two key concepts in FM 101-5 which will bring about the most effective and most harmonious performance out of the pattern if they are applied with conviction and if they are made to permeate the whole thinking of a given headquarters and those near it.

The first key concept is found in the sentence, "The commander and his staff should be considered as a single entity." In common usage, an entity is "that which has reality and distinctness of being either in fact or for thought." It follows, therefore, that the commander, the general staff, and the special staff must, as a group, think and act as though they were one mind. Therefore, there can be no "command" separations within this single entity, nor compartments, nor staff sections "under" other sections. "Command" exists *among* the single entities: for example, between a division headquarters and the headquarters next to it (corps headquarters above, regimental headquarters below). It is the "commander" type of officer who causes much of the violation of the single-entity concept of FM 101-5 when he refuses to accept his staff role. For example, there is no "command" among the members of a football team.

The second key concept in the manual follows from the first; it is an application of the single-entity idea to the working relationships between the commander, general staff, and special staff within the single entity.

Special staff sections are *not* compartmented or grouped under G sections; they *all* look to the chief of staff to coordinate their efforts. There are no separate G sections to direct or supervise or command special sections of anything else; there are assistant chiefs of staff, much of whose activities overlap; their role is to *assist* the chief of staff so that he and his assistants appear to be one coordinating mind or, in the language of the manual, "the general staff must function as a single coordinating staff."

While the World War I empirical determination of the "functions of command" is woefully behind the swift onrush of technology and specialization since 1917, and while this onrush has made that staff pattern a very difficult and awkward mechanism in our day, nevertheless an understanding application of the manual's two key concepts I have cited can do much to bring about a greater harmony and an increased efficiency in staff work.

COL. LELAND B. KUHRE

Acad. of Org. Science
San Antonio 1, Texas

Pride in the Army Green

● Some time ago I promised my son I would write you and express my appreciation and admiration for Major Multissimus on "The Wearing of the Army Green" [May 1957]. I endorse every word. This gentleman deserves a medal for his attempt to render justice to all those who are so deserving.

I also agree that "that Bilko thing" on television is a disgrace to one of the finest groups of men on earth. It's just too bad that some people enjoy their fun at the expense of their defenders.

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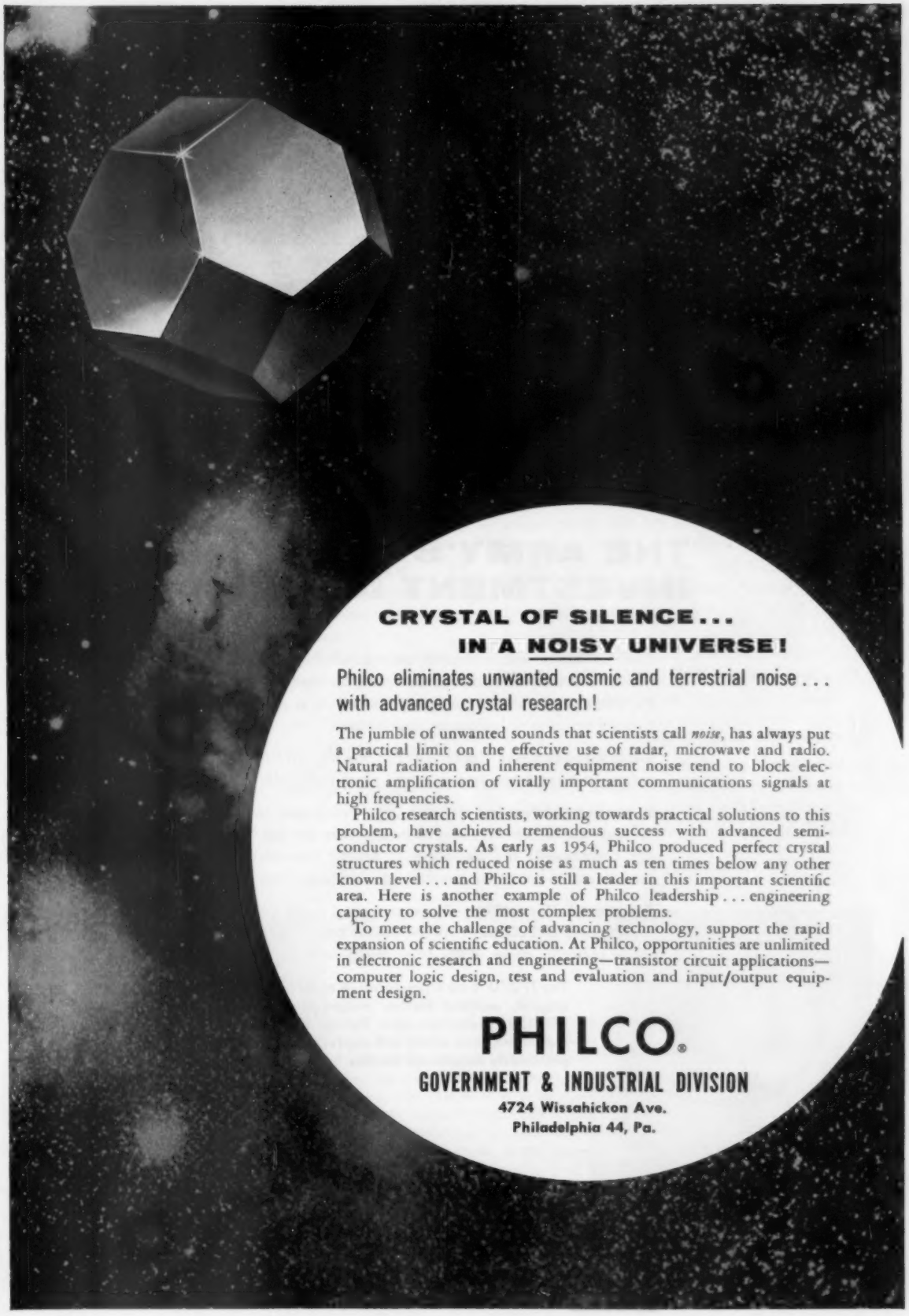

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THE ARMY'S MONTH

Reserve Component Reorganization. The Army's new Reserve Components Program will reorganize Army Reserve and National Guard units into Pentomic-type outfits. Some units will be converted into training headquarters and the number of reserve component units will be adjusted to conform with war plans and national policy.

Reorganization will cut National Guard divisions by six, to a total of 21; eliminate 1,100 company-size Guard units; cut Reserve divisions by four, to a total of six; and cut Reserve company-size units by 25 per cent.

The plan, which has been under study by the Army staff for the past year, has been given the go-ahead by the Subcommittee on Reserve Matters of the House Armed Services Committee.

The program has stimulated varied reaction. To no one's surprise, opposition has been heard from the National Guard Association.

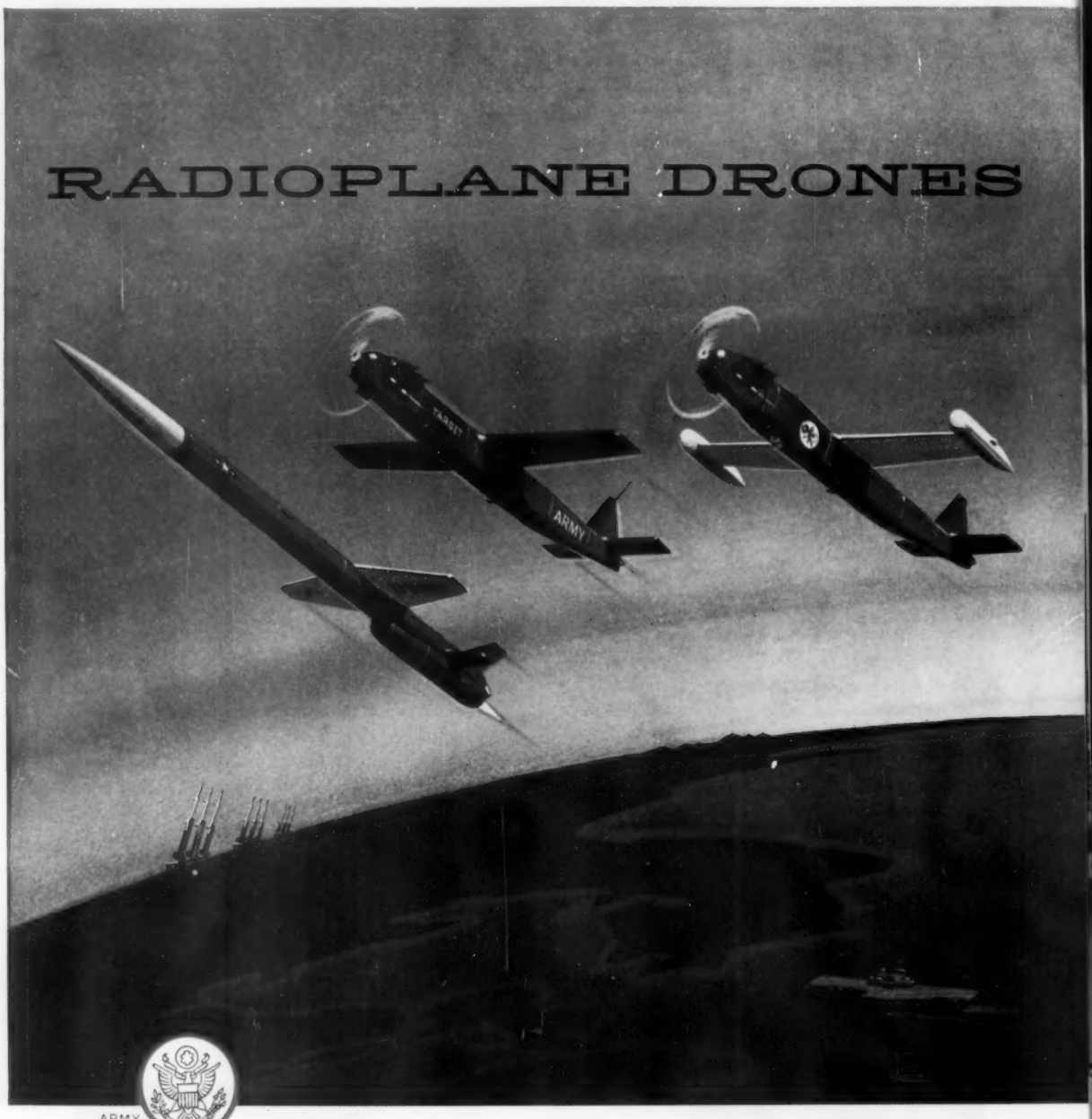
Secretary Brucker has carried the brunt of support for the plan. In a letter to each of the nation's 48 governors and in a speech to the Adjutants General Association at Phoenix, Ariz., he explained the need for the changes and defended the method of making them. "The Active Army, the Army National Guard and the Army Reserve are a composite entity," he told the Adjutants General. "We are not three separate segments which become a whole only when joined together by some emergency. We are one Army. We must plan as one. We must organize as one, and if we must fight a war, then we will fight as one."

New Army Missile Setup. The Army missile setup has undergone a major reorganization with the establishment of the U. S. Army Ordnance Missile Command at Huntsville, Ala. The new command, under the direction of Maj. Gen. John B. Medaris, former head of the Army Ballistic Missile Agency, exercises control over ABMA (including the ARMA Project Office at Cape Canaveral, Fla.), Brig. Gen. John A. Barclay commanding; the Jet Propulsion Laboratory at Pasadena, Calif., Dr. William H. Pickering in charge; the Army Rocket and Guided Missile Agency, (formerly Redstone Arsenal) also at Huntsville, Brig. Gen. John G. Shinkle commanding; and the integrated White Sands Proving Ground, Maj. Gen. Waldo E. Laidlaw commanding. Maj. Gen. H. N. Toftoy, former CG of Redstone Arsenal, is Deputy Commander.

The command has been given the right of direct access to Secretary Brucker and the Chief of Staff. It will be responsible for various existing and future missile programs, among them the development of the Pershing solid-propellant missile and the production of the Jupiter IRBM.

LT. GEN BRUCE C. CLARKE *(left)*, **Commanding Seventh Army, to be Commanding General, Continental Army Command, when GEN. W. G. WYMAN retires. LT. GEN. CLYDE D. EDDLEMAN** *(right)*, **Deputy Chief of Staff for Operations, to succeed General Clarke as CG, Seventh Army.**

RADIOPLANE DRONES



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XQ-4A . . . Evolving from the supersonic XQ-4, the Air Force XQ-4A is a highly sophisticated target drone designed to cope with the exacting and comprehensive requirements of evaluating the kill-ability of modern weapon systems.

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RP-77D ... Powered by Boeing's rugged 502-10 turboprop engine, the RP-77D provides high speed, and both high and low altitude performance at low cost for the training of gun and missile crews.

RP-77DL ... The RP-77DL will carry the RP-76 target aloft for launch at altitude over the Army's Nike ranges, thus eliminating the need for diverting a manned plane and crew into a workhorse job.

RP-76 ... (Shown attached to the RP-77DL) The rocket powered RP-76 has very high altitude capabilities for training the Army's ground-to-air missile crews against fast, realistic targets.

XKD4R-1 ... Designed for U.S. Navy fleet target air-to-air and surface-to-air weapon training, the XKD4R-1 rocket drone flies a pre-set course by programmed flight control.

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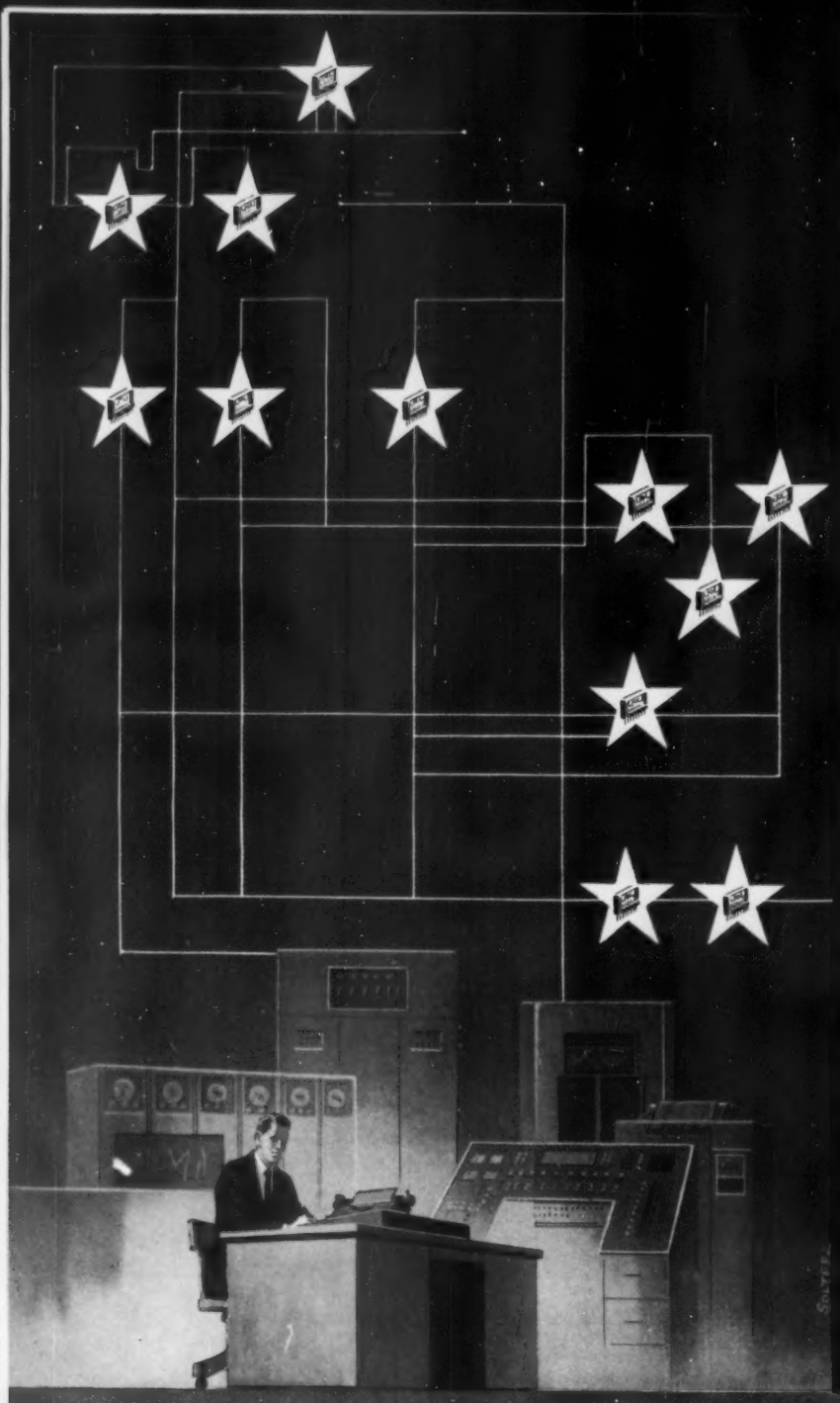

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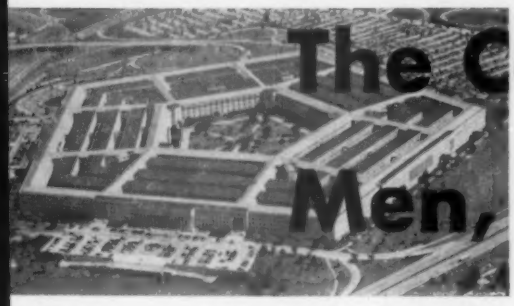
Army magazine *analyzes the President's Reorganization Plan*



The Control of Men, Money, Missions

(The full text of the President's message begins on Page 30)

THE President's reorganization message and the draft legislation designed to effect it, constitute, in the opinion of the Association of the U. S. Army, a distinct forward step in the perfection of the Nation's organization for military security and its ability to wage war should war be forced upon it.

The revisions deemed essential by the President in his message to Congress outlining his plan of reorganization of the Nation's military establishment have two principal objectives:

- To provide for unified strategic and tactical planning and control of the Nation's operational forces in order to assert a common, concentrated effort should war be forced upon us; and
- To provide the Secretary of Defense with authority sufficient to give him "clear and direct, and flexible" control over the management of forces, funds and functions in the interests of "prompt decision and the elimination of wasteful activity."

Opinions can and do differ as to the wisdom of centralizing so much power in the office of the Secretary of Defense as the President's plan proposes. But the President is not asking for a single service: the Army, Navy and Air Force will remain as separate entities, each with specific roles and missions. There will be no all-powerful Chief of a General Staff. While the responsibilities of service secretaries will be diminished in one important aspect, these officials will continue to be highly responsible and influential members of the Pentagon's civilian hierarchy. There appears to be little visible diminution of the position of the service chiefs of staff, either as military heads of their respective services or as members of the Joint Chiefs of Staff.

If the centralization of power in the Secretary of Defense can be accompanied by an organization of his office that will overcome the ingrained bad habits that delay the decision-making process and interfere in the day-to-day operations of the service departments, much will be gained. The President's plan does not solve this problem. Only the proper observance of proven administrative practices can do it.

The President's program has two provisions which are in conflict with the Resolution adopted by this Association at its 1957 Annual Meeting, and are therefore opposed by AUSA. These are:

- The elimination of the provision in existing law which gives a service department secretary and his military chief authority to present "to the Congress, on his own initiative, after first so informing the Secretary of Defense, any recommendation relating to the Department of Defense that he may deem proper."
- The new power given to the Secretary of Defense to

AUSA RESOLUTION ON SEPARATE SERVICES

WHEREAS, No evidence has been presented to prove that a single service or a single Chief of Staff will promote efficiency and economy, and

WHEREAS, A single service would stifle initiative and competition, lower esprit and possibly deprive Congress and the public of full information on the status of our military defense, and

WHEREAS, It is essential in the national interest that the duly appointed heads of each of the services have equal opportunity to present their views before the highest executive and legislative authorities of the Federal Government,

THEREFORE BE IT RESOLVED, That the Association of the United States Army actively support maintenance of the separate identity of the services, including the assurance that all shall have parity of expression of their views in the highest executive and legislative councils of the Federal Government.

(Adopted at 1957 Annual Meeting)

"transfer, reassign, abolish, or consolidate functions" seems excessive at this time since other inhibitions, both real and psychological, on his power have been removed by the elimination of the provision that the service departments shall be "separately administered" and by other proposals taken to increase the authority of the Secretary of Defense.

It would appear that the over-all excellence of the President's program would not be harmed if the provision for appeal to Congress by a service secretary or his chief of staff is retained in the law. On the second point, a less sweeping grant of power to "transfer, reassign, abolish or consolidate" would not affect those parts of the President's program that improve the organization of the Pentagon for the heavy responsibilities of the cold war and make it capable of directing a hot war should that become necessary.

We have carefully analyzed the President's message of 3 April and the draft legislation designed to effect it which was sent to Congress on 17 April. In the following paragraphs we present our analysis. But first, in the interests of clarity, we briefly state those points which the President has resolved by directives issued to the Secretary of Defense and those which he has requested Congress to act upon.

By Executive direction the President has ordered:

- The discontinuance of the use of military departments as executive agencies.
- That orders issued to unified and specified commands* by the Joint Chiefs of Staff will be under the authority and in the name of the Secretary of Defense.
- That the function of JCS is to "advise and assist the Secretary of Defense" and they shall not "perform any of their duties independently of the Secretary's direction."
- The discontinuance of the Joint Staff "committee system."
- The addition of an integrated operations division to the Joint Staff.
- That the Department of Defense budget for Fiscal Year 1960 and thereafter be prepared in a form that will give the Secretary of Defense greater authority and flexibility in his control of appropriated funds.
- The Secretary of Defense to critically review the operating methods of the various staffs in the Office of the Secretary of Defense and also review the interdepartmental committee structure in an effort to speed up the decision-making process.
- The Secretary of Defense to review the numbers and activities of personnel in the Washington area who are engaged in legislative liaison and public affairs.
- The Secretary of Defense to recommend a person to the President for nomination as Assistant Secretary of Defense for legislative liaison.
- The Secretary of Defense to recommend to the President all nominations beyond the two-star rank in each of the services, after receiving suggestions from the department secretary concerned and the Joint Chiefs of Staff. (This has been the practice in the past, and so constitutes no change in procedure.)

The President's request for legislative action:

- That all restrictions be removed from the establishment of full unity of operational commands and the exercise of command by unified commanders.
- The repeal of all statutory authority which vests responsibilities for military operations in any official other than the Secretary of Defense.
- That the statutory limit be raised on the size of the Joint Staff.
- That the Chairman of the Joint Chiefs of Staff be authorized to appoint the Director of the Joint Staff with the approval of the Secretary of Defense; and that he be authorized to assign duties to the Joint Staff.
- That the law make it clear that each chief of a military service may delegate major portions of his service responsibilities to the vice chief.
- That the chief of staff of a service may "exercise command or supervision over such of the members and organizations" of his service as his department secretary may direct (except forces assigned to unified or specified commands).
- The elimination of that provision of law which says the Chairman of the Joint Chiefs of Staff shall not have a vote.
- That each service secretary shall have an under secretary and three assistant secretaries, the duties of assistant secretaries to be determined by the service secretary.
- That the position of Director of Defense Research and Engineering be established.
- That authority be given to the Secretary of Defense, the Deputy Secretary of Defense, and the Director of Defense Research and Engineering to sign contracts and engage in military procurement.
- That the President be authorized to transfer officers, with their consent, from one service to another; and that the Secretary of Defense establish regulations for implementing such transfers.

*"By general usage a unified command is one composed of forces from more than one military department; a specified command is one composed of forces from only one military department."—*From sectional analysis accompanying the President's Bill to the Congress.*

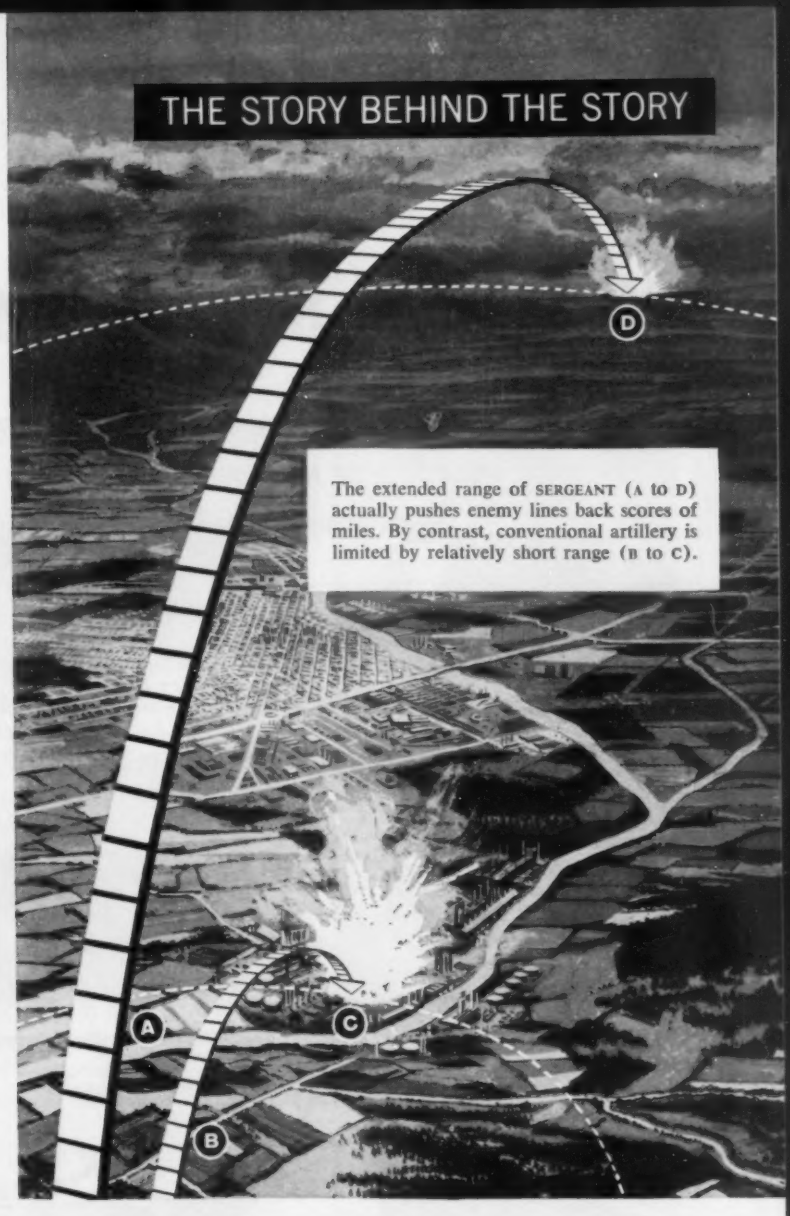
THE PRESIDENT'S PROGRAM FOR OPERATIONAL UNITY

(1) *"We must organize our fighting forces into operational commands that are truly unified, each assigned a mission in full accord with our over-all military objectives."*

(2) *"We must clear command channels so that orders will proceed directly to unified commands from the Commander-in-Chief and Secretary of Defense."*

(3) *"We must strengthen the military staff in the Office*

In recent successful test shot, SERGEANT roars into sky. A ballistic guided missile, SERGEANT is guided for precision flight to target. New guidance system cannot be detected in operation.



The extended range of SERGEANT (A to D) actually pushes enemy lines back scores of miles. By contrast, conventional artillery is limited by relatively short range (B to C).

NEW SERGEANT MISSILE WILL GIVE U.S. ARMY GREATER STRIKING POWER

Development of the new SERGEANT ballistic guided missile is a timely reminder that our nation's security requires accurate, highly mobile tactical weapons for ground defense as well as the more spectacular intercontinental missiles so much in the news. In limited or global war, our frontline troops need the support of such a weapon to crush an aggressor's attack long before he comes within the limited range of present artillery.

The SERGEANT missile is the answer... a ready-to-go solid propellant weapon with the ability to carry a nuclear warhead, a truly important contribution to the security and retaliatory power of our ground forces. In defense, the powerful SERGEANT will furnish U. S. Army commanders with mobile firepower that will be ready in minutes to strike at any attacking force. On offense, this highly accurate weapon can join tactical air units in destroying enemy fortifications.

The SERGEANT is being developed by the Jet Propulsion Laboratory of the California Institute of Technology for the Army. In preparation for production, Sperry has been working with JPL since the beginning stages of design and development. Complete production of the weapon system will be carried out by Sperry's Surface Armament Division.

Sperry's many contributions to the U.S. missile program, ranging from complete missiles to major sub-systems such as radars, automatic inertial guidance systems, electronic countermeasures, and automatic missile checkout systems, account for its selection as system manager for the production of SERGEANT.

SPERRY SURFACE ARMAMENT DIVISION
SPERRY GYROSCOPE COMPANY
Great Neck, New York
DIVISION OF SPERRY RAND CORPORATION

...speaking of

Missile Ground Support **MOBILITY**

HERE'S WHY FMC CAN

1941...LVT 1
Amphibious Personnel-Cargo Carrier

1942...LVT (A) 1
Amphibious Armored Assault Vehicle

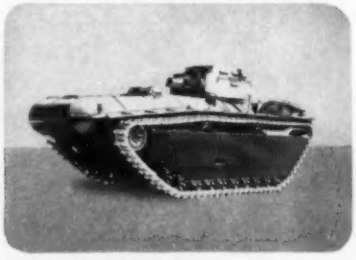
1942...LVT 2
Amphibious Personnel-Cargo Carrier

1943...LVT (A) 2
Amphibious Armored Personnel-Cargo Carrier

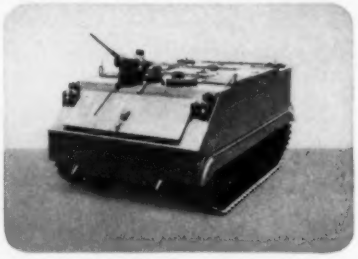
1944...LVT 4
Amphibious Personnel-Cargo Carrier

1944...LVT (A) 5
Amphibious Armored Assault Vehicle

1945...LVT 4 Lightweight
Amphibious Personnel-Cargo Carrier

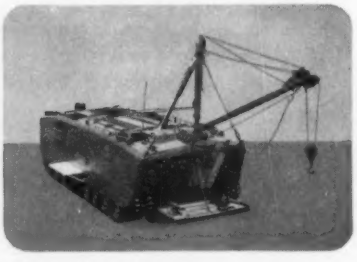


1949...LVT (A) 5 Modified
Amphibious Armored Assault Vehicle



1951-1958...M59
Armored Personnel Carrier

1954...LVT P6
Amphibious Armored Personnel-Cargo Carrier



1955...LVTR-1
Modified Vehicle for recovery duty

1957...M-84
Mortar Carrier Vehicle

HANDLE MISSILE LAUNCHER PROGRAMS

1957...HAWK
Mobile loader Vehicle

1958...THOR
Transporter-erector Launching Mount & Power Control Trailer

FMC's development of ground support equipment for major missile projects stems from over 17 years experience in producing mobile surface equipment for the Armed Forces

Since 1941, FMC has designed and built more types of military-standardized tracked vehicles than any other company in America. This extensive and versatile background in the field of mobility can be applied to your missile ground support project.

FMC is uniquely qualified to handle every phase of the job from design concept through development, engineering, and production on any size project. Long familiarity with military requirements enables FMC to approach basic design with standardization in mind. With fully integrated facilities devoted exclusively to the production of defense equipment, contract delivery requirements are met – on schedule.

Do what others have done. Provide for the over-all success of your missile system, by contacting FMC at the very beginning of your program. This will insure perfectly coordinated development and delivery of required ground support equipment. Contact us today for more information.

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FMC'S MISSILE EQUIPMENT PROJECTS:

HAWK — Mobile loader vehicle	THOR — Transporter-erector & power control trailer	REDSTONE — Tracked prime mover
NIKE-HERCULES — Shipping and storage containers	BOMARC — Erector-launcher and Decontamination system	NAVAHO — Transporter-erector & vertical access tower

Putting Ideas to Work

FOOD MACHINERY AND CHEMICAL CORPORATION

Ordnance Division

Missile Equipment Section 4A

1105 COLEMAN AVENUE, SAN JOSE, CALIF.

of the Secretary of Defense in order to provide the Commander-in-Chief and the Secretary of Defense with the professional assistance they need for strategic planning and for operational direction of the unified commands."

These three proposed revisions are listed together and will be discussed together since they constitute the President's plan for achieving unified planning and control of the Nation's operational military forces.

The need for an operational "command post" if war should come is self-evident, and the fact that none now exists constitutes a grave weakness in our defense organization. This gap the President proposes to plug by revoking the "executive agent" system by which unified commands are assigned to the executive control of the various service secretaries, and by creating an operational division in the Joint Staff.

Unified or specified commands will be established by the direction of the President and will be in the Department of Defense and separate from the military services. A unified or specified commander will have unquestioned authority over all forces of all services assigned to him and he will receive orders only in the name of the Commander-in-Chief and the Secretary of Defense.

To provide the Secretary of Defense with the detailed military planning necessary to direct these forces, the President would have the Joint Chiefs of Staff advise and assist the Secretary of Defense. He would provide that orders issued to the commands by JCS would be under the authority and in the name of the Secretary of Defense.

The President would also reorganize the Joint Staff in order to provide JCS and the Secretary of Defense with an operations staff capable of providing the strategic planning essential to the direction of the unified forces. This change will eliminate the "equal representation" committee system that has made the work of the Joint Staff slow and cumbersome. Since the law provides that the Joint Staff cannot exceed 210 officers, the President wants Congress to increase this number. He also wants Congress to authorize the Chairman of JCS to appoint the Director of the Joint Staff (with the approval of the Secretary of Defense) and to assign duties to the Joint Staff—the Joint Chiefs themselves can also assign duties to the Joint Staff. In asking the Congress to remove the legal stipulation prohibiting the Chairman of the Joint Chiefs from voting, the President said this was unnecessary and wrong, since JCS does not act by voting.

The President also wants the Congress to repeal such statutory authority as gives responsibility for military operations to any person except the Secretary of Defense. This he deems necessary since under present laws the Chief of Naval Operations has legal authority to command naval operating forces, and the Air Force Chief of Staff major units of the Air Force.

Pending the revision of this law the President has by Executive direction told the members of the Joint Chiefs of Staff not to perform any of their duties independently of the Secretary of Defense.

By Executive direction he has also ordered that operational commands be unified and has abolished the "executive agent" system; he has directed the formation of an integrated operations division in the Joint Staff and has abolished the JCS "committee system."

That a command post like this would be necessary in time of war (and most difficult to create after war began) is irrefutable. If evidence of this is desired, it can be found in profusion in the official Second World War histories of the offices of the Chief of Naval Operations and the Chief of Staff of the Army. Add to this the tremendously increased velocity of warfare in an age of atomic and thermonuclear weapons ranging from massive weapons of destruction to "baby" bombs of extreme sensitivity and short-, medium- and long-range rockets and ballistic missiles, and the arguments favoring an in-being operational command post in the Pentagon are indeed persuasive.

Careful analysis of these proposals designed to provide for unified strategic planning and firm control of the Nation's operational forces, discloses no reason for believing the Army's philosophy of war would be circumscribed in any degree. Indeed, the Army's command concept—that a commander should be given the forces and a strategic mission and be left to work out his plans to the best of his ability and with a minimum of high-level, over-the-shoulder guidance—seems implicit in these proposals. Furthermore, the Chief of Staff of the Army as a member of the Joint Chiefs of Staff will continue to be in a position to make his influence felt. The Secretary of the Army's position will not be affected by the proposals under consideration up to now, except as he has acted as an executive agent.

Because it believes these proposals of the President will strengthen the military position of the United States by giving it a machine capable of unified strategic planning, and by providing an effective command system reaching from the Commander-in-Chief to the commander of an operational force, the Association of the U. S. Army endorses and supports these proposals.

THE PRESIDENT'S PROGRAM FOR ADMINISTRATIVE IMPROVEMENTS

We turn now to the President's proposals for improving administration.

(4) *"We must continue the three military departments as agencies within the Department of Defense to administer a wide range of functions."*

In considering this proposal, it is helpful to note that in his discussion of the need for full unity of command, the President wrote that he "most emphatically" did "not contemplate repeal of laws prescribing the composition of the Army, Navy, Marine Corps, or Air Force. I have neither the intent nor the desire to merge or abolish the traditional services."

THE MAN BEHIND THE GREASEGUN . . . The exploits of the fliers and aircraft that are keeping our nation secure can not be written without proper credit to the unheralded man behind the greasegun. He is a member of a maintenance crew . . . a crew chief . . . a plane captain who is content to enjoy the reflected glory of his ship. Something of him flies with every aircraft, and when ship and crew return safely he knows his job has been well done. For he knows that nothing could fly, no pilot could climb aboard without his contribution. Kaman Aircraft recognizes the job these men are doing and gives them a tangible salute by designing helicopters which require minimum maintenance and make the man behind the greasegun whistle while he works.

THE *KAMAN* AIRCRAFT CORPORATION

PIONEERS IN TURBINE POWERED HELICOPTERS

BLOOMFIELD, CONNECTICUT

While the several service secretaries will lose the responsibility placed upon them as executive agents, they will continue to report directly to the Secretary of Defense and be outranked in the Department only by that Secretary and his Deputy. As agencies of the Department of Defense the services will continue to mobilize, train, equip and support forces for operational use and will have heavy administrative, logistical and research and development responsibilities.

However, the President desires that the requirements of the law that the services will be "separately administered" be removed and that the Secretary of Defense be given authority to "transfer, reassign, abolish, or consolidate functions." If this authority is given to the Secretary of Defense, it appears that he could, if he and his President wished, pretty well render a service impotent without "merging" or "abolishing" it. There is merit in the President's statement that the law appears contradictory in giving the Secretary of Defense "direction, authority and control" over his department and yet also prescribes that the services shall be "separately administered" by the service secretaries. This "prescribes controversy by law," the President believes, and he wants to end it. But it would seem possible to end it without making it even remotely possible for a service to be "abolished" by indirection—not, it can be emphatically added, by the present Administration, but by some later one.

These proposals of the President are in conflict with the Resolution adopted by AUSA at its 1957 annual meeting.

The President wants each service department to have an under secretary and three assistant secretaries (instead of the present four) with the decision as to the number to be made by the department secretary. In our opinion, the present system of four assistant secretaries should be continued. Their workload is heavy and important. One assistant secretary less would increase the burden on the remaining three, the under secretary and the secretary himself. We do not believe this advisable, especially in view of the fact that the President does not propose to decrease the number of Assistant Secretaries of Defense.

(5) *"We must reorganize the research and development functions of the Department in order to make the best use of our scientific and technological resources."*

This proposal is least debatable of any of the President's administrative recommendations. Enough has been made public in Congressional hearings to make it clear that we must make better use of the scientific talent and technological resources available to the Nation's defenses. This calls for an able and resourceful administrator armed with considerable power. The President proposes that Congress establish a Director of Defense Research and Engineering empowered with considerable authority over the research and engineering activities of the Department of Defense and of the several services. The President recommends that this Director be given rank above that of the Assistant Secretaries of Defense but below that of the three service secretaries.

The draft legislation sent to the Congress by the President includes a provision giving the Secretary of Defense authority to direct any "officer, agency, or employee of the Department of Defense to perform any function with respect to research and development authorized by law to be performed by any officer, agency or employee of the Department of Defense." It also provides that the Director of Defense Research and Engineering may "direct research and engineering activities that the Secretary of Defense deems to require centralized management."

These provisions suggest that the Department of Defense will be able to engage directly in research contracting if the President's recommendations are approved by the Congress. This is unmistakable since the President's draft bill also gives the Director of Defense Research and Engineering authority to sign procurement contracts. This means that if money is available the Department of Defense could engage in procurement without using the procurement powers and agencies of the service departments. This is the first time this has been proposed since unification became fact.

(6) *"We must remove all doubts as to the full authority of the Secretary of Defense."*

In addition to those actions and recommendations of the President that are designed to increase the authority of the Secretary of Defense which we have already discussed, there are a number of others that would increase his authority over appropriated funds, give him greater control over information and legislative relations of the department, and make it possible for him to encourage transfer of officers from one service to another.

The President's recommendation that Defense funds be appropriated "in such fashion as to provide the Secretary of Defense adequate authority and flexibility to discharge his heavy responsibilities" is one of the most controversial of all of his proposals.

In what Mr. McElroy has described as a "psychological point" to get across the idea within the Department of Defense "that this is a single department," Mr. Eisenhower has directed that the 1960 budget be prepared "along functional lines." "We don't see," Mr. McElroy has said, "that there is a major change in the way in which the appropriation will be made that will have any significance, except the psychological significance of this being one appropriation to the Department of Defense, with certain designations of that appropriation split into seven or eight categories to the individual services, rather than money being appropriated directly to the services involved."

This is, of course, an exercise, since Congress can appropriate funds either in this way or in the old way or some other way, as it sees fit.

Without spelling out the details, the President proposes that the Secretary of Defense be given "flexibility in money matters." By this he desires that the Secretary have authority to transfer from function to function or from service to service a certain percentage of appropriated funds. On this Mr. McElroy has said: "The amount of flexibility has been greatly exaggerated. We don't know exactly what that percentage should be. I think ten per cent would be excessive. I think . . . we should . . . have an acceptance of the principle of the need for flexibility to take care of two particular kinds of situations."

The two "particular" situations the Secretary referred to are (1) an emergency involving one service to a much greater extent than the others at some place in the world and (2) an unanticipated scientific breakthrough that demanded rapid exploitation.

Congress will, of course, take a long look at these proposals. The power of the purse is its very jealous prerogative and it isn't likely to give up even a small portion of it without overwhelming evidence of need. We agree that there should be some flexibility in the budget to take care of such situations.

Little need be said about the President's desires to strengthen the position of the Secretary of Defense in reference to public affairs and legislative relations. Two assistant secretaries, one for public affairs and the other for legislative liaison, will not decrease the number of Assistant Secretaries of Defense and could become an administrative obstacle to fast action in areas that sometimes require very fast reaction indeed.

There is no indication in the President's message that he intends to do away with the services' public information and legislative liaison offices. Nor is it likely that a centralized system would work if it were attempted. In both instances information desired by the public or by members of Congress would have to come from the services themselves, and someone in the services would have to be available to provide it to the centralized agency. It would be a top-heavy structure that would probably collapse in the first high wind, and the President undoubtedly appreciates this.

Apparently the President believes that a change in the law to make it simpler for an officer to transfer from one service to another will improve the efficiency of the national military establishment. At any rate, the change he advocates will make it possible for the President to transfer an officer who is willing to transfer, without also obtaining the approval of the secretary of the service from which the person is transferring or the secretary of the service to which he is transferring.

In the final analysis the President's plan:

- Does not destroy the Army, Navy or Air Force.
- Does greatly increase the authority of the Secretary of Defense.
- Does improve the organization of the Pentagon for the tasks of the cold war and makes it more capable of directing a hot war should that become necessary.

Without question the President's message of 3 April and the draft legislation which followed it constitute the boldest, far-reaching attempt we have seen since the issue of "how much unification?" was first raised in 1945.

Clearly, Congress will debate many of the proposals at great length, especially the proposed grants of power to the Secretary of Defense over men, money and functions. It is in these areas that we also have doubts. But we do believe that the President's plan to unify our operational commands and to organize an "operational command post" within the Joint Chiefs of Staff is a forward step and one that has long been needed.

Summary of Reorganization Bill Sponsored by Members of Senate and House

SIMILAR bills introduced by Senators Bridges and Mansfield and Representatives Vinson, Kilday and Arends provide for a plan of reorganization quite different from that advocated by the President. None of the provisions of this bill conflicts with the stated position of the Association of the U. S. Army.

Briefly summarized their bill:

- Extends membership in the National Security Council to the Secretaries of the Army, Navy and Air Force.
- Limits the number of Assistant Secretaries of Defense to four: one for matériel requirements, one for personnel, one for research and engineering, and a comptroller.
- Authorizes the Secretary of Defense to appoint three civilian special assistants to serve, respectively, as general counsel, principal advisor on public and community relations, and principal advisor on legislative policy and to act for the Secretary in liaison with Congress. Each of the last two advisors would have military assistants from each service department.
- Limits the Office of the Secretary of Defense to 600 civilians.
- Limits the duties of the Comptroller of the Department of Defense to fiscal policy and procedures including recommendations on fund management but excluding exercise of any supervision, control or judgment over programs and requirements of the military departments.
- Authorizes the Joint Chiefs of Staff to "establish unified commands in strategic areas, including the assignment and withdrawal of forces, designation of geographic boundaries, and provision for coordination among such commands and any other commands established by the Secretary of Defense or the President."
- Limits the tenure of the Director and members of the Joint Staff to three years on a single assignment except in time of war.
- Eliminates the military department under secretaries and authorizes each department to have two assistant secretaries to perform such duties as prescribed by respective department secretaries.
- The Vice Chief of Staff of each service to exercise such authority as the service secretary delegates to him.

The President's Plan of Organization

THE WHITE HOUSE

TO THE CONGRESS OF THE UNITED STATES:

LAST January I advised the Congress of two overriding tasks in present world conditions—the ensuring of our safety through strength, and the building of a genuine peace. To these ends I outlined eight major items requiring urgent action.

One was defense reorganization.

In this message I discuss the administrative and legislative changes that I consider essential to the effective direction of our entire defense establishment. They are not numerous. They are, however, very important. They flow from these principles:

First, separate ground, sea and air warfare is gone forever. If ever again we should be involved in war, we will fight it in all elements, with all services, as one single concentrated effort. Peacetime preparatory and organizational activity must conform to this fact. Strategic and tactical planning must be completely unified, combat forces organized into unified commands, each equipped with the most efficient weapons systems that science can develop, singly led and prepared to fight as one, regardless of service. The accomplishment of this result is the basic function of the Secretary of Defense, advised and assisted by the Joint Chiefs of Staff and operating under the supervision of the Commander-in-Chief.

Additionally, Secretary of Defense authority, especially in respect to the development of new weapons, must be clear and direct, and flexible in the management of funds. Prompt decisions and elimination of wasteful activity must be primary goals.

These principles I commend to the Congress. In conformity to them I have formulated and urgently recommend certain changes in our defense establishment. Clearly we should preserve the traditional form and pattern of the services but should regroup and redefine certain service responsibilities. From this will flow the following significant results:

Strategic planning will be unified.

Our fighting forces will be formed into unified commands effectively organized for the attainment of national objectives.

Military command channels will be streamlined.

The Joint Chiefs of Staff will be provided professional military assistance required for efficient strategic planning and operational control.

The control and supervision of the Secretary of Defense over military research and development will be strengthened.

The Secretary of Defense will be granted needed flexibility in the management of defense funds.

The Secretary of Defense and Joint Chiefs of Staff will be given a direct voice in the appointment, assignment and removal of officers in the top two military ranks.

The authority of the Secretary of Defense will be clarified to enable him to function as a fully effective agent of the President as Commander-in-Chief.

The overall efficiency of the Defense Department will be increased.

The tendency toward service rivalry and controversy, which has so deeply troubled the American people, will be sharply reduced.

In the following remarks I set forth the background and details of these legislative and administrative proposals.

NEW WEAPONS AFFECT OUR SECURITY REQUIREMENTS

IN recent years a revolution has been taking place in the techniques of war. Entirely new weapons have emerged. They transcend all we have before known in

destructive power, in range, in swiftness of delivery. Thermonuclear weapons, missiles, new aircraft of great speed and range, atomic ground weapons, nuclear submarines have changed the whole scale and tempo of military destructiveness. Warning times are vanishing. There can be little confidence that we would surely know of an attack before it is launched. Speeds of flight are already such as to make timely reaction difficult and interception uncertain.

The need to maintain an effective deterrent to war becomes ever more critical. In this situation, we must find more efficient and economical means of developing new devices and fitting them into our defense establishment. We must so revise this establishment as not only to improve our own use of such devices; additionally we must be able to counter their use against us.

The products of modern technology are not, in many cases, readily adaptable to traditional Service patterns or existing provisions of law. Thus there has tended to be confusion and controversy over the introduction of new weapons into our armed forces and over the current applicability of long-established Service roles and missions.

Moreover, the new weapons and other defense undertakings are so costly as to heavily burden our entire economy. We must achieve the utmost military efficiency in order to generate maximum power from the resources we have available.

Confronted by such urgent needs, we cannot allow differing Service viewpoints to determine the character of our defenses—either as to operational planning and control, or as to the development, production and use of newer weapons. To sanction administrative confusion and interservice debate is, in these times, to court disaster. I cannot overemphasize my conviction that our country's security requirements must not be subordinated to outmoded or single-service concepts of war.

I

An understanding of the course over which we have come to the present will help determine the path we should follow now and in the future.

Presidential press conference. "Here is something for the United States . . . that is necessary."

When our Republic was founded, we had a simple solution to the problem of military organization—at first, only a War Department, then soon thereafter, a Department of the Navy. The Navy's mission was war at sea. The War Department's mission was war on land.

For a century and a half this two-department organization was well suited to our needs. Recently, however, the airplane has added a third dimension to the arts of war. At first the airplane was integrated into the traditional two-department organization, and there it remained until World War II.

Right after Pearl Harbor we adjusted our organization to accord a fuller role to rapidly growing air power. Within the War Department, the Army Air Forces were placed on equal footing with Ground and Service Forces. In the Navy, task forces built around naval aviation became the heart of the fleet. The Commanding General of the Army Air Forces became a member of the Joint Chiefs of Staff with the Army Chief of Staff and the Chief of Naval Operations.

JAMES FORRESTAL

LOUIS A. JOHNSON

GEORGE C. MARSHALL

ROBERT A. LOVETT

CHARLES E. WILSON

FROM FORRESTAL TO McELROY—Instruments in the evolution of greater authority for the Secretary of Defense

THE DEPARTMENT OF DEFENSE

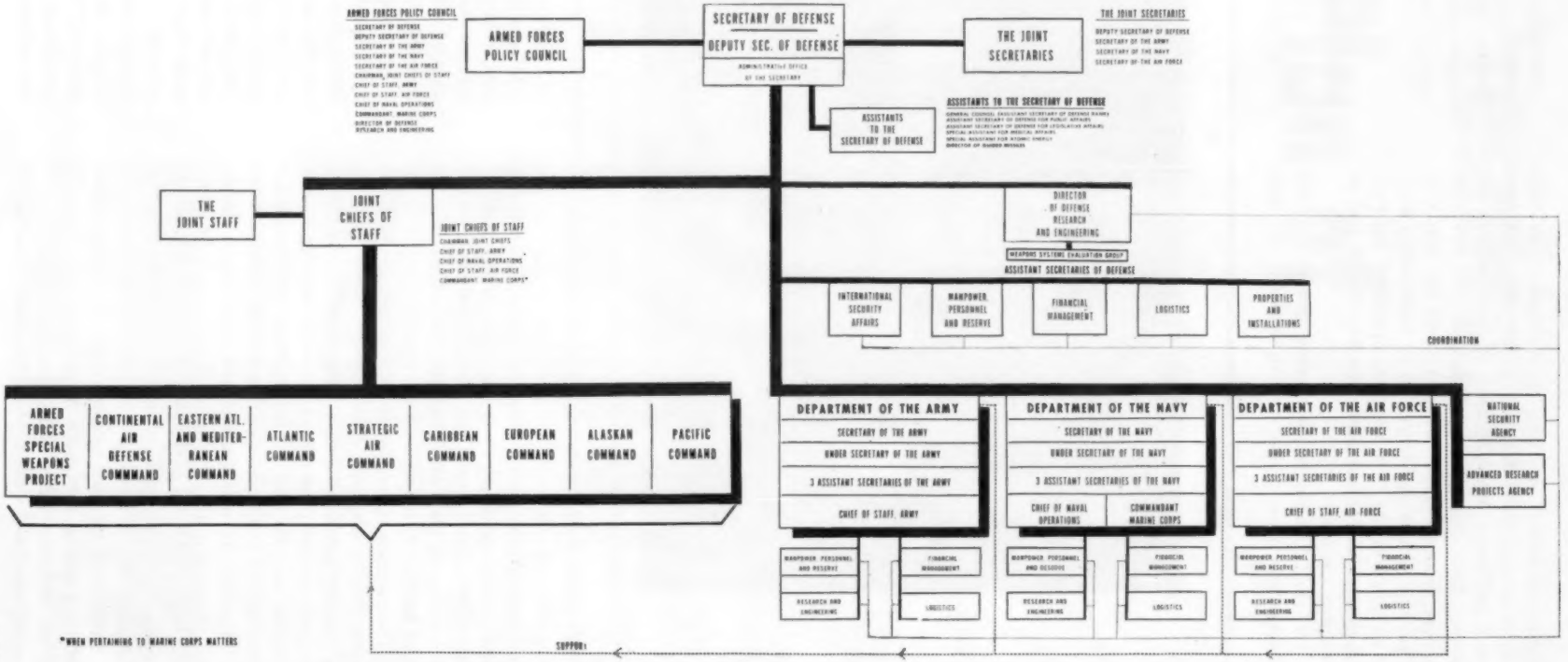


Chart of President's reorganization plan prepared by the Department of Defense

EVOLUTION IN ORGANIZATION SINCE THE END OF WORLD WAR II

Immediately after the war, efforts began to build a defense organization based upon the lessons of World War II. A basic theme was to provide an adequate organizational framework for air power armed with the awesome destructive force of atomic weapons. There emerged three co-equal executive departments—Army, Navy, and Air Force. But World War II experience had proved that no longer could warfare be effectively waged under separate Army, Navy and Air Force doctrines. So, over all our forces the Congress established a Secretary of Defense.

This reorganization in 1947 was marked by lengthy debate and eventual compromise. In that battle the lessons were lost, tradition won. The three service departments were but loosely joined. The entire structure, called the National Military Establishment, was little more than a weak confederation of sovereign military units. Few powers were vested in the new Secretary of Defense. All others were reserved to three separated executive departments.

Events soon showed that this loose aggregation was unmanageable. In 1949, the National Military Establishment was replaced by an executive Department of Defense. The authority of the Secretary of Defense over his Department was made specific. He was vested with the power of decision in the operation of several interservice boards in his Office. A Chairman was provided to preside over the Joint Chiefs of Staff. The Departments of Army, Navy and Air Force were converted from independent executive departments to subordinate military departments. They became represented in the President's Cabinet and the National Security Council by the Secretary of Defense alone. Other changes with similar effect were made.

The unifying process moved forward again in 1953. The Secretary of Defense was given staff facilities better adapted to his heavy responsibilities. Certain boards and agencies were abolished and their duties transferred to him. Additional Assistant Secretaries of Defense were provided. The Chairman of the Joint Chiefs of Staff was authorized to manage the Joint Staff for the Joint Chiefs.

These various steps toward more effective coordination of our armed forces under one civilian head have been necessary, sound, and in the direction pointed by the lessons of modern warfare. Each such step, however, has prompted opponents to predict dire results. There have been allegations that our free institutions would be threatened by the influence of a military leader serving as the principal military adviser to the Defense Secretary and the Commander-in-Chief. There have been forecasts that one or more of the services would be abolished. As a result, the Secretary of Defense has never been freed of excessive statutory restraints. As a result of well meaning attempts to protect traditional concepts and prerogatives, we have impaired civilian authority and denied ourselves a fully effective defense. We must cling no longer to statutory barriers that weaken executive action and civilian authority. We must free ourselves of emotional attachments to service systems of an era that is no more.

I therefore propose, for America's safety, that we now modernize our defense establishment and make it efficient enough and flexible enough to enable it to meet the fateful challenge of continuing revolutionary change.

II

I know well, from years of military life, the constant concern of service leaders for the adequacy of their respective programs, each of which is intended to strengthen the nation's defense. I understand quite as well the necessity for these leaders to present honestly and forcefully to their superiors their views regarding the place of their programs in the overall national effort. But service responsibilities and activities must always be only the branches, not the central trunk of the national security tree. The present organization fails to apply this truth.

While at times human failure and misdirected zeal have been responsible for duplications, inefficiencies, and publicized disputes, the truth is that most of the service rivalries that have troubled us in recent years have been made inevitable by the laws that govern our defense organization.

Parenthetically, I may observe that these rivalries, so common in the National Capital, are almost unknown in the field. Here in Washington they usually find expression in the services' Congressional and press activities which become particularly conspicuous in struggles over new weapons, funds and publicity. It is just such rivalries, I am convinced, that America wants stopped.

NEED FOR COMPLETE UNITY IN STRATEGIC PLANNING AND OPERATIONAL DIRECTION

COMING now to specific organizational changes, I want first to emphasize the vital necessity of complete unity in our strategic planning and basic operational direction. It is therefore mandatory that the initiative for this planning and direction rest not with the separate services but directly with the Secretary of Defense and his operational advisers, the Joint Chiefs of Staff, assisted by such staff organization as they deem necessary.

No military task is of greater importance than the development of strategic plans which relate our revolutionary new weapons and force deployments to national security objectives. Genuine unity is indispensable at this starting point. No amount of subsequent coordination can eliminate duplication or doctrinal conflicts which are intruded into the first shaping of military programs.

This unified effort is essential not only for long-range planning and decision which fix the pattern of our future forces and form the foundation of our major military programs, but also for effective command over military

operations. The need for greater unity today is most acute at two points—in the Office of the Secretary of Defense, and in the major operational commands responble for actual combat in the event of war.

Now as to the specifics of the revisions that I deem essential:

(1) We must organize our fighting forces into operational commands that are truly unified, each assigned a mission in full accord with our over-all military objectives.

This lesson, taught by World War II, I learned from firsthand experience. With rare exceptions, as I stated before, there can no longer be separate ground, sea, or air battles.

Our unified commands (by which term I also include the joint and specified commands which exist today) are the cutting edge of our military machine—the units which would do the fighting. Our entire defense organization exists to make them effective.

I intend that, subject only to exceptions personally approved by the Commander-in-Chief, all of our operational forces be organized into truly unified commands. Such commands will be established at my direction. They will be in the Department of Defense but separate from the military departments. Their missions and force levels will conform to national objectives.

I expect these truly unified commands to go far toward realigning our operational plans, weapons systems and force levels in such fashion as to provide maximum security at minimum cost.

Because I have often seen the evils of diluted command, I emphasize that each unified commander must have unquestioned authority over all units of his command. Forces must be assigned to the command and be removed only by central direction—by the Secretary of Defense or the Commander-in-Chief—and not by orders of individual military departments.

Commands of this kind we do not have today. To the extent that we are unable so to organize them under present law, to that extent we cannot fully marshal our armed strength.

THE SEPARATE SERVICES SHALL BE PRESERVED AND MAINTAINED

We must recognize that by law our military organization still reflects the traditional concepts of separate forces for land, sea, and air operations, despite a Congressional assertion in the same law favoring "their integration into an efficient team of land, naval and air forces. . . ." This separation is clearly incompatible with unified commands whose missions and weapons systems go far beyond concepts and traditions of individual services.

Today a unified command is made up of component commands from each military department, each under a commander of that department. The commander's authority over these component commands is short of the full command required for maximum efficiency. In fact, it is prescribed that some of his command powers shall take effect only in time of emergency.

NEIL H. McELROY
The President's plan would "clarify" authority and give "modest flexibility in money matters"

I recommend, therefore, that present law, including certain restrictions relating to combatant functions, be so amended as to remove any possible obstacles to the full unity of our commands and the full command over them by unified commanders.

This recommendation most emphatically does not contemplate repeal of laws prescribing the composition of the Army, Navy, Marine Corps, or Air Force. I have neither the intent nor the desire to merge or abolish the traditional services. This recommendation would have no such effect. But I cannot too strongly urge that our operational commands be made truly unified, efficient military instruments. Congressional cooperation is necessary to achieve that goal.

(2) We must clear command channels so that orders will proceed directly to unified commands from the Commander-in-Chief and Secretary of Defense.

The number of headquarters between the Commander-in-Chief and the commander of each unified command must be kept at the very minimum. Every additional level courts delay, confusion of authority, and diffusion of responsibility. When military responsibility is unclear, civilian control is uncertain.

Under existing practice the chain of command is diverted through the Secretaries and service chiefs of the military departments. The department with major responsibility for a unified command is designated by the Secretary of Defense as "executive agent" for that command. The department's Secretary functions through

his chief of military service.

So today the channel of military command and direction runs from the Commander-in-Chief to the Secretary of Defense, then to the Secretary of an executive agent department, then to a chief of service, and then, finally, to the unified commander. In time of emergency, the Secretary of the executive agent department delegates to his service chief his authority over the strategic direction and conduct of combat operations. Thus, ultimately the chief of an individual service issues, in the name of the Secretary of Defense, orders to a unified commander.

The role of the Joint Chiefs of Staff in this process is to furnish professional advice and staff assistance to the Secretary of Defense.

EXECUTIVE AGENTS SYSTEM ABOLISHED BY THE PRESIDENT

I consider this chain of command cumbersome and unreliable in time of peace and not usable in time of war. Clearly, Secretaries of military departments and chiefs of individual services should not direct unified operations and therefore should be removed from the command channel. Accordingly, I have directed the Secretary of Defense to discontinue the use of military departments as executive agents for unified commands.

To facilitate this effort I ask Congressional cooperation. I request repeal of any statutory authority which vests responsibilities for military operations in any official other than the Secretary of Defense. Examples are statutory provisions which prescribe that the Air Force Chief of Staff shall command major units of the Air Force and that the Chief of Naval Operations shall command naval operating forces.

(3) We must strengthen the military staff in the Office of the Secretary of Defense in order to provide the Commander-in-Chief and the Secretary of Defense with the professional assistance they need for strategic planning and for operational direction of the unified commands.

For these purposes, several improvements are needed in the duties and organization of the Joint Chiefs of Staff.

I consider the Joint Chiefs of Staff concept essentially sound, and I therefore believe that the Joint Chiefs of Staff should continue to be constituted as currently provided in law. However, in keeping with the shift I have directed in operational channels, the Joint Chiefs of Staff will in the future serve as staff assisting the Secretary of Defense in his exercise of direction over unified commands. Orders issued to the commands by the Joint Chiefs of Staff will be under the authority and in the name of the Secretary of Defense.

I think it important to have it clearly understood that the Joint Chiefs of Staff act only under the authority and in the name of the Secretary of Defense. I am, therefore, issuing instructions that their function is to advise and assist the Secretary of Defense in respect to their duties and not to perform any of their duties independently of the Secretary's direction.

INTEGRATED OPERATIONS DIVISION ADDED TO JOINT STAFF

Under present law, the Joint Chiefs of Staff are provided a Joint Staff of not to exceed 210 officers. It functions under a Director selected by the Joint Chiefs of Staff with the approval of the Secretary of Defense. The Joint Chiefs of Staff assign duties to the Joint Staff which is managed for them by their Chairman. This Staff is subdivided into a number of groups, each with equal representation of officers from the three military departments. In addition, there is a committee system whereby officers, representing each of the military departments, act on documents prepared by the staff groups before they are forwarded to the Joint Chiefs of Staff.

These laborious processes exist because each military department feels obliged to judge independently each work product of the Joint Staff. Had I allowed my interservice and interallied staff to be similarly organized in the theaters I commanded during World War II, the delays and resulting indecisiveness would have been unacceptable to my superiors.

With the operational channel now running from the Commander-in-Chief and Secretary of Defense directly to unified commanders rather than through the military departments, the Joint Staff must be further unified and strengthened in order to provide the operational and planning assistance heretofore largely furnished by staffs of the military departments.

Accordingly, I have directed the Secretary of Defense to discontinue the Joint Staff committee system and to strengthen the Joint Staff by adding an integrated operations division.

I ask the Congress to assist in this effort by raising or removing the statutory limit on the size of the Joint Staff. By authorizing the Chairman of the Joint Chiefs of Staff to assign duties to the Joint Staff and, with the approval of the Secretary of Defense, to appoint its Director, the Congress will also be helpful in increasing the efficiency of this important staff group.

I have long been aware that the Joint Chiefs' burdens are so heavy that they find it very difficult to spend adequate time on their duties as members of the Joint Chiefs of Staff. This situation is produced by their having the dual responsibilities of chiefs of the military services and members of the Joint Chiefs of Staff. The problem is not new but has not yielded to past efforts to solve it. We need to solve it now, especially in view of the new strategic planning and operational burdens I have previously mentioned.

I therefore propose that present law be changed to make it clear that each chief of a military service may delegate major portions of his service responsibilities to his vice chief. Once this change is made, the Secretary of Defense will require the chiefs to use their power of delegation to enable them to make their Joint Chiefs of Staff duties their principal duties.

I have one additional proposal respecting the Joint

Chiefs of Staff. It is needed to correct misunderstanding of their procedures. Present law provides that the Chairman of the Joint Chiefs of Staff shall have no vote. The fact is, neither do the other members, because they do not act by voting. I think it is wrong so to single out the Chairman. This provision should be repealed.

RESPONSIBILITIES OF SERVICE SECRETARIES

(4) We must continue the three military departments as agencies within the Department of Defense to administer a wide range of functions.

Under the new command procedures I have described, the Secretaries of the military departments will be relieved of direct responsibility for military operations. Thus, under the supervision of the Secretary of Defense, they will be better able to perform their primary functions of managing the vast administrative, training and logistics functions of the Defense Department. The military departments will remain permanent agencies within the Department of Defense, and their Secretaries will continue to report to and be directly responsible to the Secretary of Defense. These Secretaries should concern themselves with such vital tasks as bringing greater economy and efficiency to activities which support operational commands rather than with military operations themselves.

The responsibilities of these Secretaries—each heading a department much larger than any executive department except the Department of Defense itself—are heavy indeed. In my judgment each of these Secretaries will continue to need the assistance of an Under Secretary and not less than two Assistant Secretaries. It should be possible, however, to eliminate at least one and perhaps two of the four Assistant Secretaries now authorized for each military department. The duties of these Assistant Secretaries should be left to the determination of each service Secretary rather than fixed by law.

MORE R&D AUTHORITY FOR THE SECRETARY OF DEFENSE

(5) We must reorganize the research and development functions of the Department in order to make the best use of our scientific and technological resources.

Our weapons systems five to ten years hence will be the outgrowth of research and development which we conduct today. Until world tensions can be reduced by trustworthy agreements, we are unavoidably engaged in a race with potential enemies for new, more powerful military devices being developed by science and technology. In so critical a contest we must carefully balance our scientific resources between military and civilian needs. I consider it particularly important, therefore, that we improve the Defense Department's organization for military research.

Later in this message I will recommend measures to strengthen the authority of the Secretary of Defense to administer other functions of his department. Referring at this point only to research and development, I consider it essential that the Secretary's control over organization and funds be made complete and unchallengeable. Only if this is done can he assure the most effective and economical use of the research and development resources of his department. These processes are costly in money and skilled personnel; duplications are therefore doubly damaging.

The Secretary must have full authority to prevent unwise service competition in this critical area. He needs authority to centralize, to the extent he deems necessary, selected research and development projects under his direct control in organizations that may be outside the military departments and to continue other activities within the military departments. I anticipate that most research activities already under way would continue within the military departments. Such new undertakings as require central direction can be centralized with far less difficulty than projects already assigned to military departments.

To give the Secretary of Defense the caliber of assistance he requires in the research area, I recommend that the new position of Director of Defense Research and Engineering be established in place of the Assistant Secretary of Defense for Research and Engineering. I believe his salary should be equal to that of the Secretaries of the military departments. He should rank immediately after the Service Secretaries and above the Defense Assistant Secretaries. As the principal assistant to the Secretary of Defense for research and development, he should be known nationally as a leader in science and technology. I expect his staff, civilian and military, also to be highly qualified in science and technology.

This official will have three principal functions: first, to be the principal adviser to the Secretary of Defense on scientific and technical matters; second, to supervise all research and engineering activities in the Department of Defense, including those of the Advanced Research Projects Agency and of the Office of the Director of Guided Missiles; and, third, to direct research and engineering activities that require centralized management.

Further, it will be his responsibility to plan research and development to meet the requirements of our national military objectives instead of the more limited requirements of each of the military services. It is of transcendent importance that each of our principal military objectives has strong and clearly focussed scientific and technical support.

With the approval of the Secretary of Defense, this official will eliminate unpromising or unnecessarily duplicative programs, and release promising ones for development or production. An especially important duty will be to analyze the technical programs of the military departments to make sure that an integrated research and development program exists to cover the needs of each of the operational commands. It will be his responsibility to

initiate projects to see that such gaps as may exist are filled. In addition, the Director will review assignments by the military departments to technical branches, bureaus and laboratories to assure that the research and engineering activities of the Defense Department are efficiently managed and properly coordinated.

I would charge the Director, under the direction of the Secretary of Defense, with seeing that unnecessary delays in the decision-making process are eliminated, that lead times are shortened, and that a steady flow of funds to approved programs is assured. Only under this kind of expert, single direction can the entire research and engineering effort be substantially improved. In these various ways, he should help stop the service rivalries and self-serving publicity in this area.

(6) We must remove all doubts as to the full authority of the Secretary of Defense.

The Secretary of Defense is accountable to the President and the Congress for efficient direction of the largest single activity in our nation. We look to him for sound management of programs amounting to well over $40 billion a year—programs that gravely concern the survival of our country. Yet, his authority has been circumscribed and hedged about in a number of ways which not only make the burdens of his office far heavier than they need to be, but also work against the efficient and effective direction of national security activities which all Americans—and especially the Congress—rightly expect.

The following areas in the defense establishment are especially in need of attention.

(1) Appropriated funds;
(2) The organization and distribution of functions;
(3) Legislative liaison and public affairs activities; and
(4) Military personnel.

MORE AUTHORITY OVER FUNDS FOR THE SECRETARY OF DEFENSE

I regard it as fundamental that the Secretary, as civilian head of the Department, should have greater flexibility in money matters, both among and within the military departments. I have already commented on the desirability of this authority in respect to research and development. It is desirable in other areas as well. Firmly exercised, it will go far toward stopping the services from vying with each other for Congressional and public favor.

Today most of our defense funds are appropriated not to the Secretary of Defense but rather to the military departments. The Secretary of Defense and the Comptroller of the Department of Defense may place certain limitations on the use of funds by the military departments. Yet they do not have sufficient directive authority over such expenditures.

This method of providing defense funds has worked against the unity of the Department of Defense as an executive department of the Government. I strongly urge that in the future the Congress make appropriations for this Department in such fashion as to provide the Secretary of Defense adequate authority and flexibility to discharge his heavy responsibilities. This need is particularly acute in respect to his powers of strategic planning and operational direction.

I have accordingly directed, in consonance with existing statutory provisions, that the Department's budget estimates for the 1960 fiscal year and thereafter be prepared and presented in a form to accomplish these ends.

MORE AUTHORITY OVER DISTRIBUTION OF DEFENSE DEPARTMENT FUNCTIONS

In addition to greater authority and flexibility in the administration of defense funds, the Secretary of Defense needs greater control over the distribution of functions in his Department. His authority must be freed of legal restrictions derived from pre-missile, pre-nuclear concepts of warfare. Various provisions of this kind becloud his authority. Let us no longer give legal support to efforts to weaken the authority of the Secretary.

On this point the law itself invites controversy. On the one hand, the National Security Act gives the Secretary of Defense "direction, authority, and control" over his entire Department. Yet the same law provides that the military departments are to be "separately administered" by their respective secretaries. This is not merely inconsistent and confusing. It is a hindrance to efficient administration. I do not question the necessity for continuing the military departments. There is clear necessity for the Secretary of Defense to decentralize the administration of the huge defense organization by relying on the military departments to carry on a host of essential functions.

The contradictory concept, however, that three military departments can be at once administered separately, yet directed by one administrator who is supposed to establish "integrated policies and procedures," has encouraged endless, fruitless argument. Such provisions unavoidably abrade the unity of the Defense Department.

An example in just one area—procurement and supply—is evidence of the kind of damage caused. In this area the "separately administered" concept, as well as the needless confusion over roles and missions, impede such techniques for increased efficiency and economy as the Single Manager Plan, which would provide many of the benefits of a separate service of supply without its possible disrupting effects.

I suggest that we be done with prescribing controversy by law. I recommend eliminating from the National Security Act such provisions as those prescribing separate administration of the military departments and the other needless and injurious restraints on the authority of the Secretary of Defense. I specifically call attention to the need for removing doubts concerning the Secretary's authority to transfer, reassign, abolish, or consolidate functions of the Department.

I anticipate that the Secretary of Defense and his Deputy will require, in addition to a Director of Defense

Research and Engineering and various special assistants, seven Assistant Secretaries of Defense plus a General Counsel of equivalent rank. I conceive of these Assistant Secretaries as having full staff functions; that is, they are empowered to give instructions appropriate to carrying out policies approved by the Secretary of Defense, subject at all times to the right of service Secretaries to raise contested issues with the Secretary of Defense. This is the usual concept of the powers of principal staff assistants. It is essential to the work of the Assistant Secretaries of Defense.

I should add here that, with a view to reducing personnel and avoiding unnecessary interference with service activities, the Secretary of Defense will critically review the operating methods of the various staffs in the Office of Secretary of Defense. He will also review the interdepartmental committee structure within the Department in an effort to accelerate the entire decision-making process.

MORE SUPERVISION OVER LEGISLATIVE LIAISON AND PUBLIC AFFAIRS

Earlier I mentioned that a principal outlet for service rivalries is the public affairs and legislative liaison activity within each of the military departments. For many years I have attached the greatest importance to providing prompt and accurate information to members of the Congress. I have the same viewpoint in respect to furnishing information to the press and the public. But surely everyone will agree, that personnel charged with such duties should not seek to advance the interest of a particular service at the expense of another, nor should they advance a service cause at the expense of over-all national and defense requirements. Of this I am sure: We do not want defense dollars spent in publicity and influence campaigns in which each service claims superiority over the others and strives for increased appropriations or other Congressional favors.

I have directed the Secretary of Defense to review the numbers as well as the activities of personnel of the various military departments who engage in legislative liaison and public affairs activities in the Washington area. I have requested that he act, without impeding the flow of information to the Congress and the public, to strengthen Defense Department supervision over these activities and to move such of these personnel and activities as necessary into the Office of the Secretary of Defense.

I have, in this connection, advised the Secretary of my desire that his principal assistant for legislative liaison be a civilian official. On the recommendation of the Secretary, I shall nominate a person as Assistant Secretary of Defense to perform those duties. An Assistant Secretary of Defense already holds the responsibility for public affairs activities.

Finally, I believe we can strengthen unification by two actions involving military personnel.

PROMOTION AND ASSIGNMENT OF TOP-RANKING OFFICERS

First, I am instituting a new personnel procedure for top-ranking officers. It is my belief that before officers are advanced beyond the two-star level, they must have demonstrated, among other qualities, the capacity for dealing objectively—without extreme service partisanship—with matters of the broadest significance to our national security. I am, therefore, instituting this new procedure: I will consider officers for nomination to these top ranks only on recommendations of the Secretary of Defense submitted to me after he has received suggestions of the Secretaries of the military departments and the advice of the Joint Chiefs of Staff. I also will base my assignments of these officers to high command, staff and departmental positions on recommendations of the Secretary of Defense. I will, in reassigning or removing them, follow the same procedure.

I further believe that the Secretary of Defense should be authorized to establish procedures for the transfer of officers between services, with the consent of the individual in each case. This authority is needed primarily in technical fields so that an officer especially qualified to contribute to the success of an activity of a sister service may be afforded an opportunity to do so without interrupting his service career. I would not limit this authority, however, to technical fields.

AT my direction the Secretary of Defense will shortly transmit to Congress draft legislation to carry out those items I have discussed which require legislative action. I urge the Congress to consider them promptly and to cooperate fully in making these essential improvements in our defense establishment.

NOW in conclusion let us clearly understand that through these various actions we will have moved forward in many important ways.

We will have better prepared our country to meet an emergency which could come with little warning.

We will have improved our military planning.

We will have accelerated decision-making processes.

We will have effectively organized our defense programs in the crucial fields of science and technology.

We will have remedied organizational defects which have encouraged harmful service rivalries.

We will have improved the over-all efficiency and unity of our great defense establishment.

In our country, under the Constitution, effective military defense requires a full partnership of the Congress and the Executive. Thus, acting in accord with our respective duties and our highest tradition, we shall achieve an efficient defense organization capable of safeguarding our freedom and serving us in our quest for an enduring peace.

DWIGHT D. EISENHOWER

THE WHITE HOUSE,
April 3, 1958.

Armed with 30 2-inch folding fin aerial rockets, fired from 10-foot launching tubes, the Sikorsky H-190 Chickasaw spits suppressive fires over a piece of Alabama real estate.

Why and how Army Aviation arms for battle

LIEUTENANT COLONEL JOHN W. OSWALT

IN moving from its past missions of contributing to the success of the ground battle by locating artillery targets and serving as the eyes of tactical commanders, towards more active participation in the ground battle, Army Aviation has been somewhat slow on the draw. But it's coming along fast now, with experiments and tests at the Army Aviation School at Fort Rucker, Alabama.

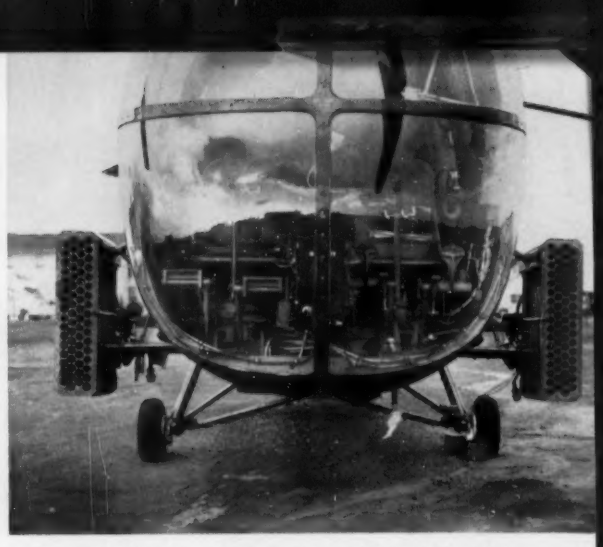
The story begins back towards the end of the Second World War when Army aviators occasionally mounted bazookas and other weapons on liaison aircraft, pretty much as stunts. They also dropped hand grenades and small anti-personnel bombs from their craft. As Bill Mauldin put it in one of his cartoons, some even considered strafing with a caliber .45 hand gun. The German Air Force on several occasions used Feisler Storch aircraft to harass Allied troops by bombing them with anti-personnel bombs on moonlit nights. The only results were interruption of road traffic and the loss of a little sleep.

Lieutenant Colonel John W. Oswalt, *Artillery,* is Deputy Director of Combat Developments, U. S. Army Aviation Center, Fort Rucker, Alabama.

Vertol H-21C Shawnee armed with 14 2.75-inch folding fin aerial rockets (loaded into 2 Packmeyer podded tubes), 2 caliber .30 aerial machine guns (500 rounds), and 2 caliber .50 aerial machine guns (100 rounds).

In March 1945 the Commandant of the Field Artillery School at Fort Sill was directed by Headquarters, Army Ground Forces (now CONARC), to conduct an experiment in the use of liaison type aircraft armed with bombs, rockets and recoilless guns. These tests concluded that all but the recoilless guns could be effectively used and that experiments should be continued.

In March 1951 as a result of interest expressed by General Mark W. Clark regarding the feasibility of arming Army aircraft for special missions, the project was assigned to AFF Board No. 1. It became Project AC-951 and was coordinated in accomplishment with the Artillery School. The project confirmed the feasibility of arming Army fixed-wing aircraft with machine guns, aerial rockets, selected bombs including anti-personnel, and incendiary and aerial flares for battlefield illumination. The "Mooney Mite," Fletcher "Defender," Beech T-34 and Tempco T-35 were used in this project. Because of favorable horsepower-to-weight ratio, performance and maneuverability made these aircraft well suited for contour flying and surprise attacks. It was the feeling of those involved in the project that such aircraft, operated by the Army close to front lines in Korea, would be of considerable value against Chinese and North Korean tanks. Their cost was something less than $14,000 per aircraft and their chances of survival at least equal to that of an infantryman in a ditch with a bazooka. As to vulnerability, it was believed that protection would be provided by surprise in sudden low-level attack by erratic flight and by terrain. Long before the project was completed, the subject of armed Army aircraft became a political issue at high levels. To prove the point, it was recommended that a test group of ten aircraft with volunteer crews be sent to Korea and there, in actual combat, prove, once and for all, effectiveness and degree of vulnerability. This idea met with strong resistance and was benched. The Army dropped the project until 1954 when it was revived at Fort Rucker under the title of Able Buster.



Piasecki H-25 Army Mule mounting 132 1.5-inch rockets and 2 caliber .30 machine guns (500 rounds each).

From experiments using a large variety come up with an efficient

Bell H-13E Sioux mounting 6 2.75-inch folding fin aerial rockets and 4 caliber .30 aerial machine guns

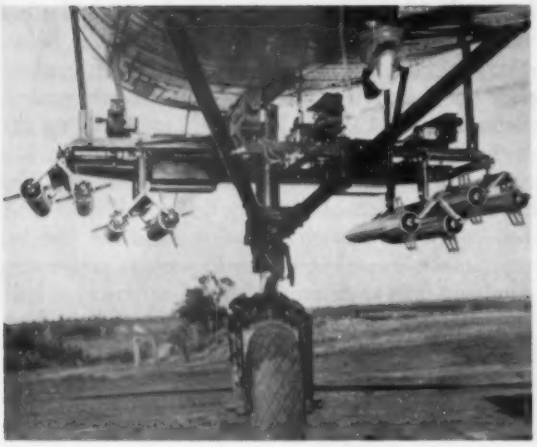
Helicopters as weapons platforms

Except for some sporadic and undocumented testing in early 1951 by the Marine Corps, nothing much had been done about use of the helicopter as a weapons platform. AFF Board Project No. AC-951 stated that the helicopter was too unstable to bear consideration as a suitable weapons platform. But a resolute group at the Army Aviation School did not think so and organized a Sky Cav platoon more than a year ago. This represented more than a mere mounting of weapons on helicopters. It was the birth of an entirely new tactical concept to give the Army a potent unit for use on the atomic or non-atomic battlefield.

We have all read or heard a great deal about Sky Cavalry since its introduction in Exercise Sage Brush in the summer of 1955. Sky Cavalry means different things to different people. It means one type of unit and mission to armor and yet another type of unit and mission to the intelligence people.

The armored force concept of Sky Cav is the imposition of a light transport helicopter company upon the armored reconnaissance battalion of the armored division. This constitutes basically a ground unit augmented with aircraft to facilitate its mission by providing observation, reconnaissance, some mobility and battle area surveillance. The concept was tested as part of Exercise Sledgehammer and called Sky Cav II. Mobility was limited, generally speaking, to the mobility of its least mobile element.

The intelligence concept of Sky Cav is to use Army aviation in a purely target acquisition role. Infra red equipment, still- and moving-picture cameras, radar, television, and other passive means of target location are mounted in the aircraft. It was not intended that

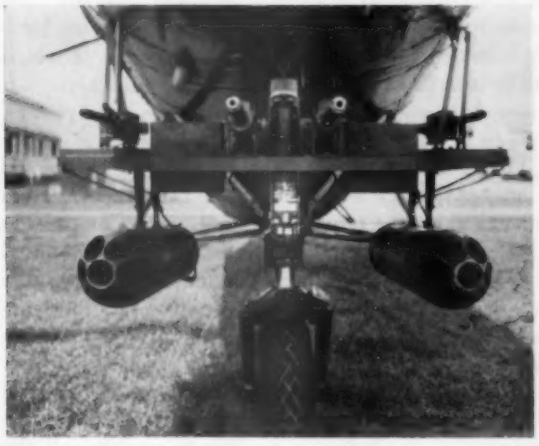


Vertol H-21C Shawnee mounting 8 80mm Oerlikon fixed fin aerial rockets and 4 machine guns (2 caliber .50s mounted midship and 2 caliber .30s mounted near the tips of the mounting)

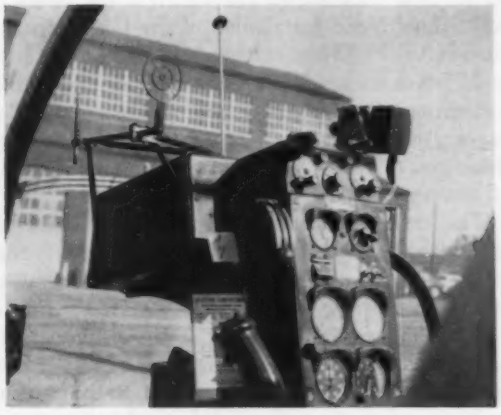
Bell H-13E Sioux mounting 12 2.75-inch folding fin aerial rockets and 4 caliber .30 aerial machine guns

of vehicles and weapons, the Army Aviation School and associated agencies expect to weapons system that will meet all the requirements of aerial combat reconnaissance

Shooting end of the Vertol H-21C Shawnee which is also shown on the first page of this story



Improvised sight for H-13E



this unit fight to obtain intelligence.

Aerial Combat Reconnaissance Company

The Army Aviation School concept of Sky Cav is the provision of a completely air-mobile, air-mounted, fast-moving, hard-hitting, flexible means of searching out and fixing the enemy and performing the traditional missions of cavalry at an accelerated rate. Various agencies have recognized the requirement for such a unit and there are indications that Army aviation can provide such a force capable of performing missions to include covering force action, reconnaissance, counter-reconnaissance, flank protection, rear area defense to include anti-guerrilla, anti-airborne and anti-infiltration, and economy-of-force in filling in between major units on the dispersed atomic battlefield. The Department of the Army has approved the activation of the 7292d ACR Company (Experimental) at Fort Rucker, as part of the Army Aviation School troops. This Sky Cav unit represents the latest thinking of the Army Aviation School in organization, equipment and tactical employment of such a unit. It will serve as a vehicle for the further testing of doctrine, organization, and equipment.

At the present, this unit has many equipment shortcomings. The helicopters are not optimum in performance, reliability, or ease of maintenance; weapons are mounted using impromptu hand-designed mounts, and sighting and alignment of weapons are relatively primitive. Sights being used are Air Force and Navy types intended for use with higher-performance fixed-wing aircraft. The elevation or depression of weapons to

compensate for differences in attitude of the helicopter from hover to forward flight is not possible with these jury-rigged mountings.

Variety of weapons

Weapons mounted and tested include caliber .30 and .50 machine guns and rockets in size from the 1.5-inch NAKA to the 5-inch HVAR. The standard armament package on the reconnaissance helicopter varies from two caliber .50 machine guns and six 2.75-inch rockets to two to four caliber .30 machine guns and six to twelve 2.75-inch rockets. The larger weapons ships, which have the primary mission of suppressive fires, have a variety of armament. The H-19 has 30 two-inch folding-fin aerial rockets; the H-25 has 132 1.5-inch NAKA rockets; the H-21 has a combination of machine guns and eight 80mm or 14 2.75-inch rockets. At present these weapons have offered no sure-kill anti-tank capability, primarily for reasons of lack of accuracy. Helicopter fire is more accurate from forward flight than from hover as small deflections in the attitude of the aircraft at hover will cause wide dispersion of rounds fired. Also the rockets are more accurate when launched into a slipstream in forward flight. The fire is adequate, however, as anti-personnel suppressive fire. Subsequent experiments conducted at the Army Aviation School tested installation of the GE weapons pod (two NATO 7.65mm machine guns and eight 3.5-inch or 2.75-inch rockets). This pod had vertical traverse to compensate for helicopter altitude using an electric motor. Also test was made of a GE twin caliber .50 machine gun turret to gain experience in lateral and vertical traverse.

The question inevitably arises as to vulnerability of these aircraft over the battlefield. It is the feeling of the Army Aviation School that those operating at minimum altitudes of fifteen to fifty feet, within the folds of the earth will have a higher probability of survival than do much faster, higher-flying aircraft. Low-level flying avoids radar detection and the more sophisticated antiaircraft guided missile weapons which the enemy may possess. Reconnaissance helicopters and ground intelligence can find the avenues of approach to a target area that will avoid enemy strength. If the enemy disperses for protection from atomic attack, there will likely be some areas through which such helicopters could fly relatively immune from ground attack.

Present helicopter equipment has many shortcomings, one of which is its lack of armor protection. It is expected that newer helicopters, specifically designed for missions of this nature, will be armored as well as armed.

Recently, Vertol Aircraft Corporation brought Lieutenant Colonel Marcel Crespin to the United States from French North Africa to provide first-hand information regarding helicopter operations in Algeria. It is interesting to note that of the 130 H-19 and H-21 helicopters used in the French anti-guerrilla campaign, 105 were hit by rifle or automatic fire, but only two of these crashed beyond repair. In each case the pilot had been hit while the aircraft was at low altitude. Before the co-pilot could recover control, the aircraft crashed. Operations Research Office and Combat Developments Experimentation Center, Fort Ord, are studying the vulnerability of Army aircraft. At present, there is a great dearth of factual information on the subject. The Army Aviation School, in conjunction with the Ordnance Ballistics Research Laboratory and the Combat Developments Experimentation Center, is performing preliminary tests to determine the effectiveness of helicopter suppressive fire and pilot accuracy in tracking and firing on targets. Initially, this will be done by using gun cameras and later both cameras and live ammunition. Tests will include use of an H-34 with automatic stabilization equipment engaged and disengaged.

It is anticipated that the Aerial Combat Reconnaissance Company (Experimental) will have four major subdivisions: reconnaissance helicopters; troop carrying helicopters; weapons helicopters; and administrative (supply and evacuation) helicopters. Combat reconnaissance task forces can be formed using equipment and troops to fit the particular mission. Normally, reconnaissance will seek out and fix the enemy. Next suppressive fire is brought to bear upon the enemy by use of conventional artillery, if available, and fire from the weapons ships. Following the suppressive fire, landing is made by troop-carrying helicopters each of which has its own limited suppressive fire capability.

Larger organization in offing

The Army Aviation School has recently completed a study project for a larger combined arms organization using the Aerial Combat Reconnaissance Company as a basic building block. This study has been submitted to CONARC. All agencies that have seen this study have generally concurred with it while offering comments for improvement. The study proposes a completely air-mobile combined-arms unit incorporating as major elements an aerial combat reconnaissance group and a conventional infantry battle group completely air carried. This unit should be able to perform all the conventional missions of cavalry and have an air-to-ground and a ground-to-ground fighting capability. Everyone and everything is air-carried to include administrative support. The Army Aviation School feels that a test organization of this type should be activated following completion of tests of the Aerial Combat Reconnaissance Company.

While the concepts, proposed tactical operations, equipment and organization involved with the subject of armed Army aircraft are only in the formative stage, it appears certain that something tactically useful will evolve. Recently CONARC approval was obtained for further development of doctrine, organization and equipment for aerial combat reconnaissance type units. With this official sanction, firm requirements and projects for development of more suitable equipment can be established.

SUMMARY SHEET

(DA Memo 340-15)

TO						FOR		FROM	
	DCSLOG		COA		CLL	1,2,3	APPROVAL	AGENCY CINFO	
	DCSOPS		ACSI	1	CHIEF OF STAFF		SIGNATURE		
	DCSPER		ACSRC	2	A S OF A (MP&RF)		COORDINATION	GRADE & NAME OF CONTACT OFFICER	TELEPHONE
	CRD		TAG	3	SECRETARY OF THE ARMY			BrigGen C V Clifton	74482

FILE REFERENCE	SUBJECT	DATE
CINFO-014.13	PUBLIC RELATIONS	3 Apr 58

IMPLICATIONS: *(This action involves the implication(s) checked below, detailed discussion of which follows or is attached as separate inclosure(s). These have been considered in the final recommendation.)*

☐ PRIMARY PROGRAM ☐ MANPOWER ☐ BUDGET ☐ LEGAL

☐ CONGRESSIONAL ☒ PUBLIC RELATIONS ☐ MORALE ☐ SECURITY

This is the "X" that really marks the spot! The spot you're on with John Q. Public when you are making an Army decision. It's the spot where trouble begins, or it can be the spot where trouble is prevented.

Eight little boxes on top of DA Form 520--the Summary Sheet which tops off every staff study, for approval, and every recommendation for decision in the Army staff. ☐ PUBLIC RELATIONS is only one little box--among eight--but usually when it's marked with sound judgment, the Army is kept out of a "box" with the press, the public at large, and most important, with Mr. American Taxpayer.

But when to put your "X" in this box, and when not to?

A quick survey taken around the Army staff led to some interesting comments. The question asked was: "When do you mark Public Relations as an implication?"

One major's response was that he marked it every time "because I don't know what it means."

"I never mark it," said another, "because it means I have to get another concurrence from the

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Office of the Chief of Information. If I am wrong, and it has public relations implications, we'll find out about it soon enough!"

But a most indicative answer—an answer founded on a now outmoded concept of "the public be damned"—came from a staff section handling matters that mostly concern "just the Army." This staffer said, "I mark the box whenever I believe that we can't hide what we're doing!"

These are three wrong answers to the problem and fortunately were only typical of a few. The great majority responded to the question with solid replies of "whenever I think a little publicity on the subject will do the Army some good" and "when I think that some Americans would like to read about it in the paper." Still another was "whenever I think my recommendations are sound, and I would like some help 'selling the paper' to my Chief."

One other answer, not a most welcome one but a most necessary one, highlighted an important point. "I mark the box for Public Relations whenever I think the problem is going to be a 'stinker' and someone isn't going to like it!"

So it's the bitter with the sweet, and the point of this article is to shed a little light on public relations, and what it is to the Army.

First, public relations is a tool of management—an instrument of the commander to make his decisions understood and acceptable to the many publics of a Federal agency, responsive to the people. Troop information, as a part of the commander's kit, helps him to win the support and understanding of the men and women who are in the Army, and in a small way, attempts to make them better prepared to know what their mission is, and what they are expected to do. The other side of the coin, public information, should help to make the Army more acceptable in the community, and make it easier to get along in the world because of understanding, acceptance, and finally, civilian pride in the Army as a part of our nation.

Public relations, however, is *not* just a high-falutin name for publicity. It is *not* just a device to get free space in the papers or on the radio. Most of all, public relations is *not* a device to cover up or "whitewash" a bad situation or an unacceptable decision.

Public relations has its place in the Army because we are living in a time and in a society where it is helpful, advisable, and often necessary to have the approval of our neighbors for what we do. In the case of the Army, we are dependent on our "citizen neighbors" for acceptance, and ultimately for funds to provide the men and tools with which we protect the nation. In business, the neighbors are customers, employee families, suppliers, public officials, voters, stockholders, newspaper reporters and editors, radio and TV broadcasters and commentators, group leaders, teachers, analysts, promoters of causes, reformers. And sometimes they are just people who talk—plus more people who constantly absorb their own impressions from others—and who finally act—or react—on what they hear and read and see.

One business man states that "the sum total of their [the people's] action or inaction towards any institution or organization spells its fate—not just in whether they buy the organization's goods or not, but also in *whether they help or hinder its functioning.*" This is even more true of the Army as a part of the national security team.

From this discussion, we get our first clue of why we have public relations implications to consider: The Army as a well-managed organization wants to be acceptable to its neighbors—in this case, the U. S. citizen, and his friends around the world. *The Army wants people to be interested in the Army and its people —and when they talk about the Army, we want them to speak favorably. We want the public reaction to Army decisions to help, rather than hinder, the Army's performance of its vital mission.*

Brigadier General C. V. Clifton, Jr., has had several exacting assignments in public relations during a career that began in 1936 when he graduated from the Military Academy and was commissioned in the Field Artillery. Among other assignments he served as public information aide to General of the Army Omar Bradley during the time he was Chief of Staff of the Army and Chairman of the Joint Chiefs of Staff. Presently General Clifton is Deputy Chief of Information, Department of the Army.

But when you mark the "X" in front of public relations, what should we expect to happen? In the long run, what are we trying to create?

The creation of sincere competency

We are trying to build a good reputation. All the recruiting advertising in the world won't attract men to an organization which stands in mediocre repute. All the appropriations in the Federal Budget, if showered upon the Army (oh, happy day!) won't bless the Army with a good reputation. The *personality* of the Army—its image in the public mind—and a *visible sense of public responsibility and accomplishment* can serve as definite and vigorous spurs to public interest and support. We have a good Army, and its reputation begins with turning out a good product, but it does not end there. The good reputation includes the impression the Army makes of progressiveness, social usefulness, good citizenship, and an established national need for an Army in peace as well as in war.

Since the American citizen is confronted with a steady succession of powerful and effective demands upon his attention, his time, and his pocketbook, the Army must present itself forcefully and clearly if the American citizen is going to pay any attention to the Army as a service—and think well of it. Good public relations is often helpful in tipping the scales in our favor.

An organization must be *believable* to have a good

reputation. Under any test to which the public puts it, the Army must be honest, forthright, and sincere. We cannot afford, ever, to raise smoke screens to hide unpleasant facts. Nor can we afford to make claims that are unjustified.

Perhaps the greatest single demonstration in the Army's favor was the recent accomplishment in sending the Explorer satellite into orbit. Army officers and scientists had said we could do it, and the result was convincing. This was backed up by a consistently conservative approach in the Army's claims for its accomplishments with missiles, even when rumor and rival claims frequently downgraded the Army's missile tests and hardware. Here again, an arsenal of performing missiles quietly countered any criticism. Truthfulness and frankness are keystones of believability, and one failure in honesty may destroy months or even years of positive effort. This is just as true of the Army's reputation with the neighboring civilian community of a post as it is on a national scale.

With whom do we build this reputation? How do we go about it? A public relations program can neither wait for the special incident, nor can we compartment ourselves to special publics. Instead, we must seek to create a *background* of information *with as broad a section of the public* as is appropriate to the scope of our operations.

How public opinion is created

Public opinion of the Army is, to a large extent, dependent upon what people read in newspapers and magazines—and how often. It is dependent upon what people see on television, at the movies, and what they hear on their radio sets—and how often. "Out of sight, out of mind" is an axiom as applicable to the Army as to an absent lover. Public opinion of the Army is also dependent on what Americans see at shows, at fairs, expositions, and conventions where organizations are represented. This is especially true at the veterans' organizations, made up of men and women who have special ties to the services.

People also form opinions on the basis of public statements that organization executives and others make. From the Secretary of the Army and the Chief of Staff, down to the public announcements of the post commanders, the Army's statements about itself, its mission, and its viewpoint are "opinion formers." They must be clear and convincing, in the language of the public—not in the technological language or jargon of the professional soldier.

To do a rounded job, it is necessary to communicate with "thought leaders" such as teachers in our schools, presidents of community organizations, ministers in our churches, and leaders in national and local industry. There are also those who speak with authority because of their particular relation to the Army—veterans of the Army are a first example. Because a man has been in the service, and has a good reputation in his home town, he often becomes the "military authority" in his own circle of businessmen and friends. But it must not stop there . . . our suppliers, including the farmer who brings food to the Army Quartermaster locally, and our recruiters, and our information officers are all considered authorities because of their special relationship to the Army. The greengrocer because he comes on the post every day, the recruiter and the information officers because they have been designated to represent the Army.

Finally, people look first and foremost at the Army itself, and its men and women, for a clue to a proper evaluation and attitude. A mother and father think about the Army those things which their recruit sons tell them. The wife of a civilian employee forms her opinion largely on what her husband thinks and says about the Army installation where he works. So the troop information program forcefully carried out can, in the long run, be the most important public relations technique of all. And the post paper, as the industrial house organ, can form impressions made in no other way. The way the post looks, the way it is kept, the friendliness or curtness of the Military Police—all of these have *public relations implications* and require an "X" in the magic box at the top of the summary sheet.

The creation of news

Finally, there is the most special implication of all—the public information program itself. The Army does not get news coverage unless it makes news. It is the job of the information officer to analyze the media available and to dig out material which will fit the style and purposes of each outlet. Is it a news story, or will it make a better movie? Is it just a feature for a magazine or is it better on television? Does it show the Army in a good light, or is it just stirring up controversy and dissension? This is the job of the information officer—but he can't do it unless he finds the news in the story—and the X in the box at the top of the summary sheet can help him do the job.

The information officer has another specialty too—he can build into Army activities the "handles" to publicity—the things which make an item or an Army newsworthy. Although it was not devised for publicity, the Army flag has been a most newsworthy "handle" as it has been presented—as well as a symbol of tradition, with its 145 battle streamers the envy of the other services. The Pentomic division is another "handle" which helps to publicize a basically newsworthy reorganization which gains some glamour from the apt and descriptive name "Pentomic."

There are a thousand good reasons, then, to put the X in the box where trouble begins—or can be prevented. How about a quick checklist? Here's a brief one. Please don't laugh when you read it.

PR checklist

MY FIRST QUESTION IS ALWAYS GEOGRAPHICAL: *Where* in the United States is this decision going to

CONTINUED ON PAGE 48

NIGHT FIGHTING

LIEUTENANT COLONEL ARTHUR R. DATNOFF

VIRTUALLY all who study future atomic combat foresee a checkerboard pattern of forces occupying positions in a very wide and very deep area. Operations will be fluid. Infiltration through gaps and full use of fire, maneuver, speed and mobility will enable the attack to be launched from two or more directions, or to compress the enemy into a remunerative atomic target. At the same time, the attacker seeks to so balance his own mass and dispersion in order not to offer himself as a target.

One solution toward successfully and safely concentrating the necessary mass at the selected point is night operations conducted without searchlights, flares, infrared devices, radar, artificial moonlight or any means which can be detected, interfered with, or equalled by the enemy. This means relying principally upon efficiently led units highly trained to conduct well-planned operations in the blackness of moonless nights.

Such a capability is not beyond reach. During World War II all sizes of U. S. units, up to army, mounted successful night operations.

Today we rely too much upon technological crutches to produce "daylight" at night. Training manuals too often overemphasize "the inherent difficulties" of night combat and understate the advantages. Consequently, we are psychologically indisposed toward true night operations and forget the lessons of previous wars. Only when a willing commander emerges (like Major General Terry Allen, whose 104th Infantry Division in World War II operated at night almost as a matter of course) do we learn to apply lessons already recorded. In Korea, only five years after World War II, most of our reverses occurred at night, and at the hands of forces with considerably less fire support than we had. Whether by choice or because of our air superiority, the Communists launched extensive night operations. It didn't take them long to detect our dislike of, and weakness in, night fighting. Their success was a rude jolt to Western confidence and posed a real threat to our technical and firepower superiority. Even the advantage of having the finest weapons is dissipated unless we learn to fight with or without their full potential—on a twenty-four-hour basis. Korea should have reminded us.

Five years later, the proponents of night combat are a vocal minority. At our service schools EENT and BMNT (End of Evening, Nautical Time, and Beginning of Morning, Nautical Time, both of which are declared in combat orders) still are signals which apply psychological brakes to the student's mind. During field training, troops at night go through widely separated compass courses, listening problems, infiltration exercises, patrols, firing demonstrations, and occasional unit operations, with no organized, concerted effort to teach and preach twenty-four-hour combat under *all* conditions. There is no real service-wide effort to convert the military establishment to the twenty-four-hour clock. We think of twelve hours of day, twelve hours of night.

We must make full use of the hours of darkness if we are to retain the initiative, conserve manpower, and overcome many tactical, numerical and material advantages that would accrue to the enemy from operations conducted only in daylight. We must become proficient in night defense as well as attack, because the effectiveness of modern weapons is leading all armies toward operating increasingly during darkness.

The essential ingredient is training

Major V. P. Naib, in the *Journal of the USI* (India) for October 1954, says that we are "night shy partly due to lack of experience and mainly due to the absence of a proper emphasis on night training. Our night exercises usually appear to terminate with the reorganization on a limited objective. In regard to the use of armor during darkness, even a remote suggestion is apt to draw loud protests."

Here and there, however, history disproves such generalities: our superbly trained Rangers were proficient night fighters; the Canadians successfully launched a heavy armor attack at Caen on the night of 7 August 1944; our 104th Division projected more than a hundred night assaults. While these are exceptions, they offer ample evidence that the sense of night sight and

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Lt. Col. Arthur R. Datnoff, *Infantry,* entered the Army in 1941. During World War II he served in Panama, Trinidad, and with the 69th Infantry Division in ETO. In Korea he was with the Military Armistice Commission and the 7th Infantry Division. He is now on duty in the Pentagon.

hearing, and the ability to conduct large-scale operations at night, can be developed. The problems of difficulty of movement, troop leading, and maintaining control and direction are surmountable. The specter of deteriorating discipline and consequent confusion, fear and panic need not disturb us. The essential ingredient of the prescription for success is training; and it is far better to anticipate and train for all possible night missions during peacetime than to improvise during an emergency after again learning the hard way.

Night training should be normal

Training for night combat must not be confined to special units—one company of a battle group, or one battle group of a division. As Major A. Seaton remarks in *The* [British] *Army Quarterly* (July 1953): "It is essential that all troops be so trained, and that one standard be general throughout the army. Any proposal to create an elite corps of night fighters . . . should be rejected because . . . in a future war, one may have to commit whole brigades and even divisions to silent night operations."

To achieve the desired high state of training we must begin early in the soldier's service, since he is on active duty for such a short time. Night training must start as soon as the basic training cycle has ended, and thereafter include all types of exercises by all sizes of units. Some advocates like Major Seaton believe that "night training and night exercises should be the normal—exercises in daylight the abnormal."

Training should include logistical, administrative and headquarters troops as well. In *The British Army Review* (March 1956) Major E. O'Ballance says:

> . . . full use must be made of the hours of darkness both for administration as well as training exercises. In training at night we stumble and fumble our way around for the simple reason that our eyes take time to accustom themselves to the darkness. The longer we stay out in the dark the better we can see. We tend to leave whatever we can, including all administration, until it gets light again.
>
> The ideal answer is that companies—battalion and up to divisional headquarters—should go away for at least a week at a time to work and train only at night. There should be no movement during the hours of daylight. This was done at the beginning of the last war and the results had to be seen to be believed. After the third night everything carried on normally and we not only carried out exercises successfully but also umpired and controlled them. On these "night training" weeks, practice should be carried out in drawing rations, supplies, petroleum, oil, and lubricants, in cooking and issuing meals, and in other routine tasks.

No twelve-hour day

One such week each month after basic training would certainly prepare thousands of servicemen to operate at night. Instead of filling training schedules with such generalities as "twenty-five per cent of all training will be conducted at night," we could well devote the fourth week of each month to training in night operations, under blackout, for all elements of field units, garrisons and headquarters. Certainly such a scheme would dispel our "more civilized" sensitivity to the physical and psychological factors of night combat, and develop among participants "complete confidence in their ability to fight effectively at night"—an objective considered desirable by training texts but rarely provided for in training schedules. Nothing can equal such practical training, and an incidental by-product might well be reflected in improved daylight operations by troops and their leaders who know they can execute carefully prepared plans under *all* conditions of darkness or light, with no regard for the twelve-hour day.

We must give greater attention to night training, and its proponents should be encouraged and supported. If we are to succeed in future combat we must be twenty-four-hour fighters, who can operate with or without man-made aids. Our potential enemies devote much time to training at night under both artificial illumination and natural conditions. Our objective must be to best any potential enemy by opposing him with troops more proficient in this old but underdeveloped dimension of the battlefield. Let's train to be twenty-four-hour fighters.

PUBLIC RELATIONS

CONTINUED FROM PAGE 45

have any effect? *Where* overseas?

THEN: *Whom* will it affect? Just people in the Army (troop information)? Or will it affect a civilian? Will it affect any man who makes anything for the Army (industrial relations)?

NEXT: *What* does the decision change? If the answer is negative, then it may be that the decision *continues* something that people *want* changed (an adverse decision to the public must be explained well and quickly). Or it may be a decision that *continues* something that people want sustained (good news!).

ALSO: *Why* is the Army making this decision? For the benefit of the soldier, the mission of the Army, better international relations, politics, economy? When you answer this question you know immediately *why* people will be interested, or why not.

FINALLY: *When* will this be effective? Time is an element of news, and timing is the essence of good public relations. And especially if the information officer is told soon enough, he can do a better job in telling the public than if he finds it out *after* the decision is made. If the information officer is *ever in his life* going to hear about this decision, put an X in the box marked public relations, and tell him before the recommendation goes in.

CONCLUSION: If any answer to any of the above questions is "yes"—or if any of the answers you make to yourself indicate that *someone else in the world beside you and your boss* would be interested . . . put the "X" in the box marked *public relations implications*—and the Army will be ahead.

BRIG. GEN. C. V. CLIFTON

DO people in the military services really have money to invest? The answer is yes. Among service families investment in securities is rapidly becoming as popular as purchasing insurance. However, servicemen should know that many of the abuses formerly associated with the sale of insurance are now practiced by investments sellers. Years ago a great deal of necessary and suitable insurance was sold to service people along with a great deal that was unnecessary and unsuitable. Abuses, especially where they concerned junior officers and enlisted men, finally brought belated action by the military departments to regulate practices by insurance agents at defense installations. Similar action to control securities salesmen is long overdue, for many extremely poor and risky investments are being offered throughout the services.

An indication of the extent of this peddling can be had by examining the advertisements. A recent issue of one service publication carried seventeen ads offering various investments. Two years ago the same periodical carried three or four such ads. One or two of the seventeen, placed by well-known reputable brokerage houses, simply offered their services. Most of the others, however, offered fabulous returns from low-priced stocks or were for mutual funds sold on a contractual basis (although the contract feature was never mentioned). The general theme was: How to get rich quick—maybe.

Let's deal first with the pitfalls likely to be encountered in haphazard investment, and list a few simple and sound rules to follow. Most of us agree that every person in the services should have, or plan to have, an investment program that is carefully thought out.

There are thousands of different stock issues. The New York Stock Exchange alone lists more than 1,100. Unlisted issues far

exceed those listed by the regulated exchanges. Exchanges don't pretend to be anything but auction markets, and the daily prices of the stocks listed by them are arrived at publicly and published in every large daily newspaper. Unlisted, or over-the-counter, stocks are traded in mainly by dealers who may own such stocks, and prices are usually arrived at through negotiation. At times it is difficult to get a firm offer or bid on these.

The best advice one can get on how to purchase securities is this: Take the same care you would exercise in buying clothes, appliances, furniture, or a home. When you buy something, don't you usually test it, consciously or unconsciously, to determine whether the article is the one you want, and whether the quality and price are right? You examine the article and check its quality and price against other similar devices. Your decision to purchase is influenced also by the manufacturer's reputation. Finally, when in doubt, the wise person deals only with a proven store, one in which he has confidence. The same general rules must be followed when you purchase securities. If everyone did, far fewer get-rich-quick securities would be purchased by service people. Although a share of stock is a share in the assets of the corporation which issues it, all you get is an engraved certificate. A certificate for, let's say, Goat Hill Uranium—a worthless stock selling at a dollar a share—looks just as imposing as the certificate for a share of General Motors selling for forty dollars. Its value, however, is far different. What rules, similar to those used in purchasing material objects, can you apply to securities?

Since his retirement, from active duty, **General John E. Dahlquist,** *USA, retired,* has been manager of the Armed Services Department in Washington of the investment firm of Harris, Upham & Company. Recently he told us about some of the financial ambushes unwary investors can walk into. His ideas about how to evade these sounded so sensible we asked him to put them down on paper for you. The result is this article which we feel contains advice all military investors can put to use. To get another opinion we showed the article to Major General William M. Miley, USA, retired, who has been with the Washington office of Merrill Lynch, Pierce, Fenner & Smith since his retirement. "Excellent advice," General Miley said after he read it over. "I hope you publish it."

G2 the field before you buy

Investments that are offered should be investigated. If the issue is a new one or a mutual fund, the law requires that a prospectus be furnished the potential purchaser. This prospectus must set forth what the company does or proposes to do, its assets and debts, what persons are promoting the venture, their compensation in salaries, options, or warrants, and finally, what commissions, acquisition costs, loading charges or underwriting costs are to be paid. If the stock is an old issue, complete statistical information can be obtained from statistical service firms. If no summary is available, then you are certainly buying a pig in a poke.

For the average person a wise procedure is to invest only in the securities of old, well-established, proven companies, especially those whose stocks are listed at the large exchanges and whose prices can be determined daily from any newspaper's financial section. Finally, it is extremely important that you know something about the agent who approaches you. For whom does he work? Is it a well-known firm? Does he know anything about securities, or is he a part-time salesman? Is he qualified to advise you?

A few months ago a folder, *How to Protect Yourself from Stock Swindles,* was prepared as a public service by the Better Business Bureau of New York City in cooperation with a number of exchanges and investment associations. You can get a free copy from any Better Business Bureau or any reputable brokerage firm. This folder lists ten simple rules:

¶ Think before buying.
¶ Deal only with a securities firm you know.
¶ Be skeptical of securities offered over the telephone by a firm or salesman you don't know.
¶ Be on guard against high-pressure salesmanship.
¶ Beware of promises of quick, spectacular price rises.
¶ Be sure you understand the risk as well as the prospect of gain.
¶ Get the facts; don't buy on tips or rumors.
¶ If a person offers securities over the phone (or by personal visit), ask him to give or mail you written information about the corporation, its operations, net profit, management, financial position, and future prospects. Save all this material for future reference.
¶ If you don't understand the printed material, consult persons (not including the salesman) who do.
¶ Give at least as much thought when purchasing securities as you would when you buy any valuable property.

Additional SOPs for service folk

These are excellent rules, and if you follow them you will avoid the out-and-out swindle. However, in the opinion of securities officials who know the Army, Navy, Air Force and Marine Corps, they are not sufficient for service people. Here are a few additional suggestions, based on actual case histories.

Never put into securities any money you may need shortly after. Be sure you have a reserve in a savings account, Government E bonds, a building and loan association, or a similar institution. The prices of stocks (including mutual fund shares) fluctuate. If you need money in a hurry and can get it only by selling your stocks, you may have to accept less than the price you

originally paid for them, and will therefore lose.

If you start an investment program for accumulating shares, either through the monthly investment plan of the New York Stock Exchange or in a mutual fund, keep it going, especially when you see the market going down. Lower prices give you an opportunity for "dollar cost averaging"—which simply means more shares for the same number of dollars.

Investigate before you buy mutual fund shares. This type of investment is good, but not all mutual funds are equally good, nor are mutual funds necessarily good for all investors. There are several hundred types of mutual funds. They range from one started this year with assets of about $100,000 invested in a portfolio of odd lots, and with a board of directors "the majority [of whom] have not had any experience in the management of a diversified investment portfolio" (says its prospectus), to one more than thirty-three years old, with assets exceeding a billion dollars and managed by men all of whom have had years of investment experience. When you purchase a share in a mutual fund you buy a share in a diversified list of stocks. More important, however, you are actually hiring management for your money. Therefore it is extremely important that you choose a fund with a proven management with many years of successful experience.

Mutual funds involve two costs: the *loading charge* or acquisition cost, and the *administrative expenses*. The loading charge is the difference between the asset (real) value and the offering price (what you pay), and varies from 6 to 9 per cent for small investments. A few funds are sold at asset value, but these are not necessarily the most successful or the best. The administrative expenses are the costs of running the fund, and the charge is continuous year after year. The larger this expense the smaller the dividends to the investor. A check of a standard reference book on investment companies shows that the annual administrative expenses as a percentage of income vary from a low of 5.5 per cent in one fund (5.5 cents of every dollar of income) to a high of 92.3 per cent in another fund (92.3 cents of every dollar of income).

Although the acquisition cost of six to nine per cent is high compared to the commission charges on outright purchase of listed stocks, there are compensating advantages in the simplicity, diversification, management, and reduction of risk in a mutual fund.

Some mutual funds are sold on a contractual basis, especially those funds being sold at military installations, often by part-time salesmen. In these funds the purchaser contracts to invest a stated sum (ten dollars or more) each month for from ten to twelve and a half years. The loading charge for the entire term is figured, and the bulk of it is taken out of the first couple of years' investments. During this period they run as high as 53 per cent in some funds. This means that of every dollar invested during the first year or two, less than fifty cents is invested, the remainder going to the distributing firm and to the salesman. If the contract is completed, the acquisition cost will usually be from 8.5 per cent upward for the entire amount invested. In general, the total acquisition cost of contract funds runs somewhat higher than in the level charge funds because of special fees. If you find it impossible to complete a contract but must stop before the contracted period is up, you are almost certain to lose, regardless of market fluctuations. Firms sponsoring contractual funds justify them on the premise that they force people to save. Probably the real reason for these funds, however, is that the salesman gets his commission —a large one—much more easily and much more quickly than had he sold a regular level-charge fund. The important thing is that you know what you are buying. The facts are in the prospectus. Make the salesman show them to you, and read them again after he leaves.

Avoid new issues, particularly those selling at a very low price per share. The record of such issues is dismal. Bankruptcies among small firms are quite common, exceeding two hundred each month. The bankrupts are not the long-established and well-managed firms but the new, poorly financed, poorly managed companies. *Financial World* for 12 December 1956 published some statistics on low-priced new issues. Of 253 new issues offered that year at $3 a share or less, only 49 (or 19 per cent) were selling above their original price—and this was a bull (rising prices) market year. Ninety of the remaining 194 could be had below their opening bids, and five showed no change. The greatest number of casualties, however, appeared to be complete losses since there was no market for 109. An investor stood a much better chance in a crap game.

Beware of the go-getter salesman

Regardless of whether the security offered is stock or mutual fund shares, avoid the salesman who has only one thing to sell and, particularly, active-duty officers or enlisted men selling on a part-time basis. Thousands are now so engaged, most of them selling mutual funds and particularly the contractual type. One dealer advertises that for twenty dollars he will register anyone to sell—no experience necessary—even if you are overseas. A person investing money is entitled to good, objective advice. The major who pushes Ducrot Fund may be a topnotch soldier, but is he really qualified to advise you on *investments*?

Finally, and most important, always remember that the money you want to invest was hard come by. Don't throw it away. Investigate first, then invest. Shun the glittering get-rich-quick offers. Let those people with more money than you risk those offers. They never do; that's why they're rich. Invest in well-known, established, successful companies or funds and deal with a reputable brokerage firm that is a member of the New York Stock Exchange and subject to all its rules, a firm that handles all types of investments instead of one. If you do these things you'll get objective advice. Invest in order to "own a share of America's Business," and not to enrich a peddler.

Let's Start With

COLONEL BENNETT L. JACKSON

THE idea of limited nuclear warfare has, at the moment at least, a bright fascination for all those who make it their business to think about war at all.

To the policy maker, limited nuclear war is the quality war. It provides an opportunity to fully use the weaponry in which we excel; it avoids the weight of effort required in a war fought with conventional arms; it is hopefully thought that it can be conducted with fewer men; and, finally, it in itself should provide a measure of deterrence (for who wants a nuclear war no matter how small?).

To the academician, the vision of limited nuclear war comes as a bold but logical synthesis of the staggering risks and costs associated with any war which can be contemplated in this age. As an intellectual concept, it is all the more satisfying that the doctrine can be accepted only after the most skillful threading of the narrow channel between the Charybdis of thermonuclear holocaust and the Scylla of conventional warfare. Dr. Henry Kissinger, the chief academic protagonist of limited nuclear war, admits that the strategy of such a war is not a simple one.

To the military man, the alternative of limited nuclear war is even more attractive. For what soldier will voluntarily sheathe his most powerful weapon? To place an army in the field and require it to withhold its "Sunday punch" is difficult. Limitations on objectives and in geography can the more readily be accepted because these clearly result from political decisions. A soldier is inclined, however, to consider weapons a military matter, and, when the use of his best one is denied him, he is made to feel that he is being forced to fight "with one hand behind his back."

The attraction of limited nuclear war, as an alternative, is such that it is, it appears, on the way to being accepted as policy. In the October 1957 issue of *Foreign Affairs*, Mr. Dulles spoke of the possibility of nuclear weapons offering an effective defense against full-scale conventional attack. As an example, he pointed out that nuclear artillery may often decisively dominate invasion routes.

Men and Weapons Must be Tried

If limited nuclear war is such an attractive strategy, and, at the same time, on the way to becoming accepted policy, the question naturally arises as to the reasons for continued debate. The debate continues precisely because all the arguments have not been finally resolved in its favor. It is true, of course, that not all the questions can be answered now. The final answers will be found only after there has been a trial of weapons and a trial of men in that viscous medium that is war.

Still, if one views the scale of war as being graduated from a low of limited, conventional war up to a high of general, thermonuclear war; and, if at the same time one agrees that the upper limit is that most to be avoided; then it would appear logical to seek to enter and hold the war at the lowest possible graduation on the scale. To aver as policy the determination to enter any war at the mid-range point on the scale, is to indicate to the enemy that we consider that point to be, for us, the optimum. Since it may be more difficult for us to force the enemy to accept our terms when they fall within the middle area of the scale, we must make very sure that this point is, indeed, the optimum.

It is clear that when we enjoy a monopoly or long lead advance in an important weapons system, we hold an advantage which should be given expression in our policy. Up to this point, the fact that an advantage exists can be determined by gross measurement. Once the lead narrows, however, it becomes necessary to resort to finer and more precise measurements in order to determine just where the advantage lies. As an example, so long as we enjoyed a monopoly in the atomic bomb, we had a clear advantage and the monopoly was measurement enough. Once the Russians had exploded

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Conventional War

their bomb, we could, thereafter, determine our advantage in this area only by comparing probable stockpiles, counting bases, looking at the range of airplanes, examining relative efficiency of air defenses, and so on through the full gamut of factors, not excluding pilot skill and the like. In the end, of course, these even up. Then it takes another advance, such as the thermonuclear bomb, to give us an advantage to which we can again apply a gross measurement.

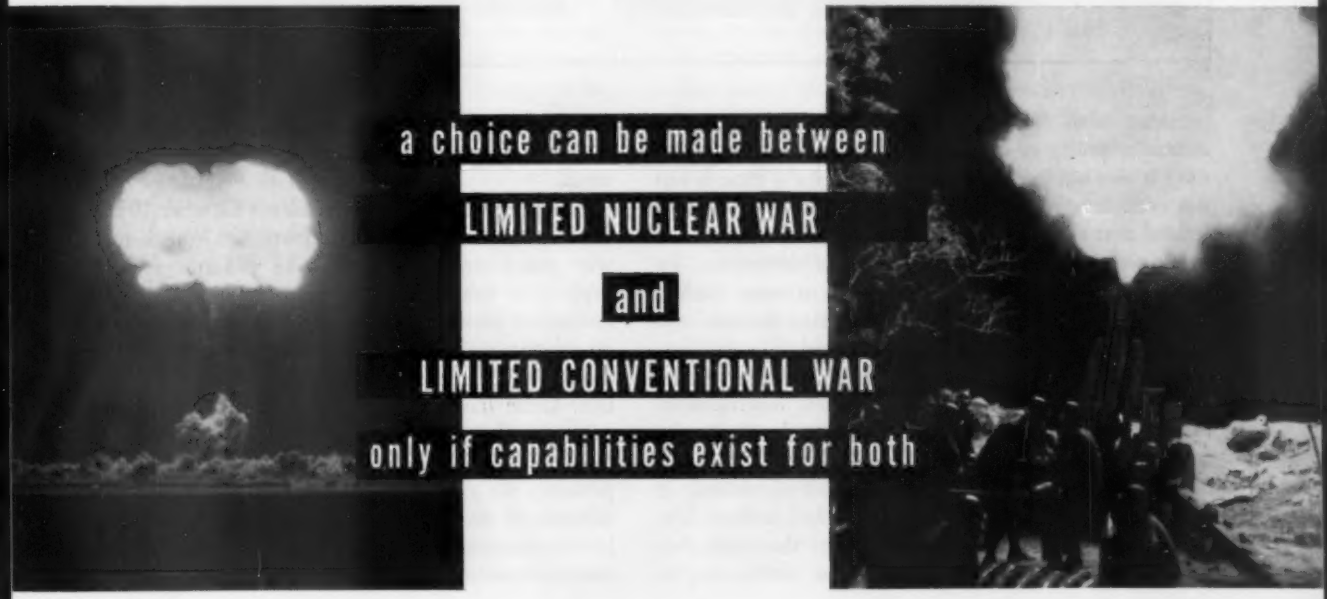
Once a stand-off in technology has been achieved, any further advantages are sure to be hard won. They can come only from superior forces and from superior strategy, generalship, leadership, organization, tactical doctrine, esprit, training and all the things that determine the quality of a fighting force.

All of this suggests that, given a rough equivalency in weapons systems, there will exist no gross advantage which can profitably shape our policy. It suggests also that a policy of limited nuclear war is possible only so long as we have a clear advantage in tactical nuclear weapons and their use. When the time comes that the measurable advantage to be gained by using any particular weapon is so small as to be in doubt, then it would be unwise to insist upon its use, especially if that weapon carries with it the potential for mutual disaster.

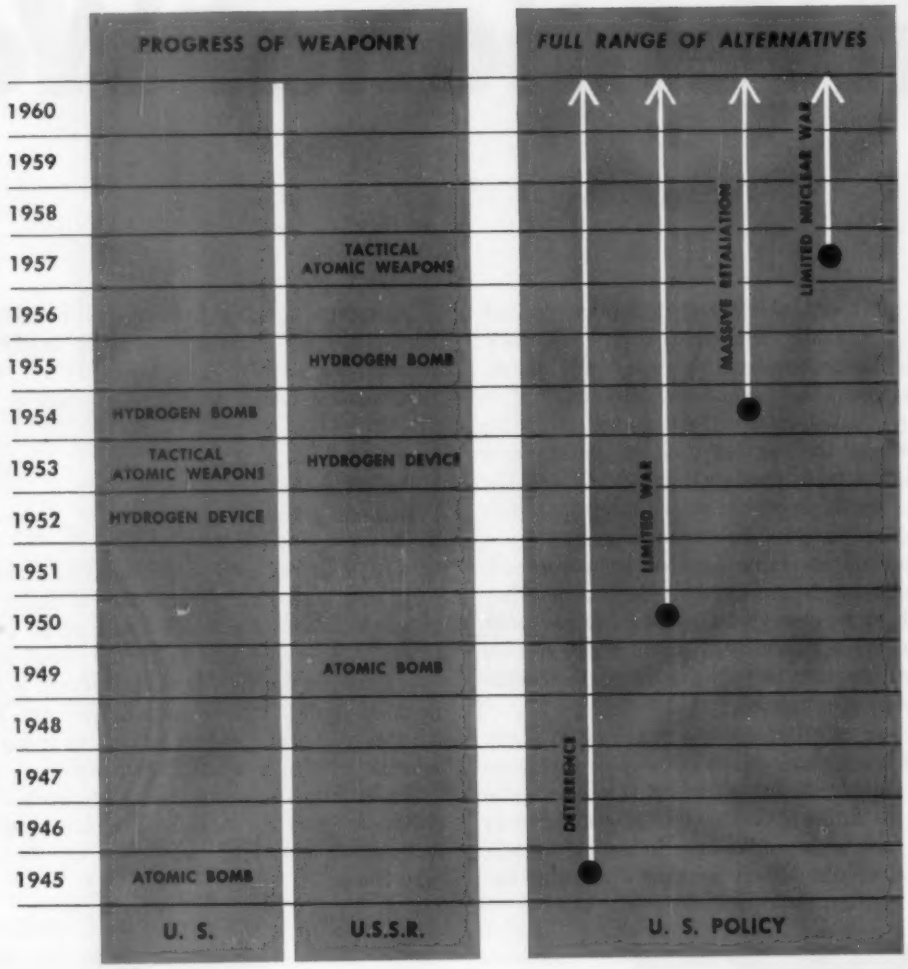
Do Weapons Determine Policy?

It is, of course, an over-simplification to suppose that weaponry is the sole determinant of policy. A myriad of other factors necessarily must enter into the decision; still, we should fully use whatever weapons advantage we do have. If the advantage is a large one, then our policy can be more broad and bold. If the advantage is small and uncertain, then our policy too must be more narrow and conservative.

To see how this sort of thing has worked out in the dozen of years we have known the super weapons, weapons development and policy can be cast into a time frame.



TIME SCALE OF WEAPONS DEVELOPMENT—1945-1960



Along with the atomic bomb in 1945 there was created a policy of deterrence, although in the beginning it was not made explicit; indeed, for a time it was not even recognized. By 1949 the Soviets had demonstrated that they too held the secret of the atom. The result was a weakening of the force of deterrence. By 1950 the Soviets felt strong enough to essay limited war by proxy. We accepted their terms because our advantage had been so greatly narrowed.

In 1952, with the explosion of a hydrogen device, we again forged ahead. But the Soviets too mastered the technique and set off their own explosion in the following year. Our policy of massive retaliation, announced in April by Mr. Dulles and elaborated in March of 1954 by Mr. Nixon, thus had a short life. We also had a thermonuclear bomb by that time, but the Soviets followed with theirs soon afterwards, in 1955. With this, it may be argued that massive retaliation became somewhat less creditable in the peripheral areas.

If it can be said that Mr. Dulles's October 1957 survey of policy was an announcement of a limited nuclear war policy—and, admittedly, he did not make this explicit—it would seem to have one purpose: getting the fullest possible use out of our tactical nuclear weapon advantage. The advantage we obtained in 1953—the 280mm "atomic cannon"—was visible evidence of this. Little has been made known of Soviet developments in this area, but it may be presumed that we have some lead in tactical atomic weapons, although probably not a comfortable one. We should have some advantage, too, in associated organization and doctrine for employment. Any lead we may have, however, is certain to narrow very rapidly. It is significant that, at

their fortieth anniversary parade—also in October 1957—the Soviets made a public display of tactical atomic weapons.

If pursuit of a doctrine of limited nuclear war is to be continued, it must be based upon an advantage of some kind. Since any technological advantage we may have had in tactical nuclear weapons will probably soon dissipate, other advantages must be found or the policy abandoned. It appears that any such advantages would be found either in our national resources or in our use of the weapons upon the battlefield. There are reasons to believe that we are not greatly favored in either respect insofar as nuclear warfare itself is concerned.

It seems always to be news to those people with a bent for defeatism that the West enjoys a tremendous advantage over the Soviet Bloc in terms of resources. Captain Liddell Hart, writing in *Military Review* in support of our developing a conventional war capability, added up the populations to show that the balance of numbers was in our favor. He could also have added up the Gross National Products to show that the economic advantage was on our side. We can match the Soviets in any area where we want to compete and we can, if we want to, outstrip them. But the important thing here is that our advantage in resources does not necessarily translate into an advantage on the atomic battlefield.

Atomic War May Become the Poor Man's War

Immense resources were required to initiate the atomic program, but, paradoxically, the atomic war may some day prove to be the poor man's war. Dr. Edward Teller has stated that U235 costs not more than $7,000 a pound. The equivalent amount of TNT would cost several hundred times as much. Because the weight-power ratio of atomic materials is so high, the savings to be gained in delivery systems are even more important. The shibboleth, "bigger bang for a buck," gives popular expression to the savings which can be forecast in nuclear warfare.

In the long run, it may be that the cheaper form of warfare favors the nation with the fewer resources. Thus, the long-range prospects of exploiting our superior resources through atomic attrition are not very inviting. If we are to get full use out of our superior resources, we may best be able to do so through improved mobility, communications and weapons of a dual purpose; in other words, through the development of truly modern, all-purpose forces. This would enable us to fight any kind of war that confronted us. The policy makers would then be freed to play upon the full range of choices.

Any advantage which the theorists see for us on the battlefield usually springs from the historical evidence that an increase in firepower favors the defense. This may well be true for nuclear weapons. It would be a mistake, however, to adduce from this a concept of defensive zones dominated by a few well-sited weapons. The machine gun favored the defense, but this only meant that the army on the defensive required many times the number of machine guns used by the offense. The attacking force could choose his point of attack and concentrate his forces. It is true that nuclear weapons, unlike machine guns, have a tremendous flexibility in the choice of targets, and the enemy will be in greater danger when he concentrates. Still, there are limits in the tasks that can be assigned to any one weapon. If an area is to be defended there must be a force to require concentration and the means of bringing down fire on the targets where they form. When these elements are applied to the terrain it can be seen that a small force can defend only a correspondingly small area. The nuclear defense force simply can not stop a many-pronged attack by dashing about the battlefield, fire brigade fashion, stopping each onslaught in its tracks.

We Always Begin on the Defensive

Since, as a matter of policy, we leave aggression to the enemy, the start of any war finds us in the defensive role. It would, however, be contrary to our instincts and training to continue in that role. If the initial, defensive phase did not succeed in destroying the enemy's will of aggression, would we not seize the initiative and pass to the attack? With whom would the advantage then lie?

In looking about the globe at places where limited wars may reasonably be postulated, one is struck by the fact that, more often than not, our forces would be dependent upon ports and airheads not far removed from the battlefield. Can we unnecessarily risk atomic strikes on our communications zone? These are some of the questions which confront us.

The theory of limited nuclear war has been pretty well elaborated. It remains now to test that theory by pragmatic, military examination. Our organization and doctrine, when fully tested, must be compared to that which can be attributed to the Soviets. Finally, this assessment must be re-examined in terms of the locales where limited war seems likely.

If the results of these examinations are favorable, a policy of limited nuclear war may be espoused with confidence. Even so, we must begin now to build on our conventional war capability against the day when we may want to change the policy. It is, of course, a vexatious thing to allow an enemy, to whom we have already conceded the right to choose the time and place of war, the choice of weapons as well. It is important to remember, however, that the time may come when we will want to force upon him the use of conventional weapons in the war he starts.

Massed Fire and

RILEY SUNDERLAND

How U. S. artillery was the first to mass artillery fires quickly and accurately

WHO invented the technique of massing fires quickly? When? And who was the first observer? When artillerymen gather socially those questions are sometimes asked, and seldom answered correctly. The technique of massing artillery fires quickly and accurately is a genuine American first. It was worked out at The Field Artillery School, Fort Sill, Oklahoma, between 1929 and 1941. The first forward observer was probably an Englishman. The School worked out these techniques because its staff in the 1920s believed that World War I techniques lacked some vital elements.

During World War I, artillerymen shot off astronomical quantities of ammunition from massed artillery in trying to get the infantry through the barbed wire and past the machine guns. As far back as the eighteenth century, artillerymen had known that cannon should be massed, and Napoleon had handled his massed artillery with masterly efficiency.

Then came the age of indirect fire at relatively long ranges. So long as the infantry could give the artillery a list of coordinates on which to place fire, and the time in which to compute firing data, artillery could put a mighty blast of fire on the target. But shifting massed fires from a scheduled target to a target of opportunity, or bringing back a barrage to help infantry that was slowed by mud and being slaughtered by enemy machine gunners who had scrambled up from dugouts cut forty feet deep in Flanders earth, was something else. During World War I, artillery support was not as effective as it should have been because there was no way to mass fires *quickly* where the infantry unexpectedly found they needed it.

Members of the Gunnery Department at Fort Sill were among those officers who, looking back on then-recent World War I, were aware that coordination among the two parts of the infantry-artillery team was not what it should have been. In 1929, under the leadership of Carlos Brewer (because officers' ranks changed during this period, names only are used here), the Department was studying this problem. One afternoon an officer was browsing in the School library. There he chanced upon *Field Guns in France*, by Lieutenant Colonel Neil Fraser-Tytler, DSO, Royal Artillery, a practical artilleryman who had grappled with the problem of supporting infantry and had come to some conclusions that were novel at the time. He found unobserved shooting dull and, he feared, ineffective, so he formed the habit of making up a small party of wiremen, and going with them past his own front line and out into No Man's Land. Establishing his OP, he would watch for parties of unwary Germans. When he spotted a party, he would send the coordinates of its location to his battery, genially admonishing them

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the FDC

not to hit him as he was not very far from the Germans. He then awaited results, which were generally good. At the end of his book Fraser-Tytler added a grim little appendix, a "Gamebook of German Casualties from Personal Observation." The estimated total is 412, placing this then obscure soldier far ahead of Von Richthofen, Billy Bishop, and Eddie Rickenbacker, combined.

When the troops he was supporting attacked, Fraser-Tytler, complete with his signallers and telephone, moved along with them. When the barrage had passed on and the Germans came boiling out of their pillboxes and dugouts to engage the British infantry plodding through the mud, there was Fraser-Tytler ready to call his battery and give genuine, workable close support. a system whereby anyone who found a target could in effect give firing commands to several batteries.

The problem of massing fires

Here was a way to put fire where the infantry wanted it, when they wanted it. The effect of Fraser-Tytler's

book on the Gunnery Department was immediate. The next Saturday morning instructors' shoot was set aside to try his methods. But how were fires to be massed, once an adjustment was made? In 1929, methods of massing observed fires were what they had been in 1918. If all battery OPs could identify and see the target, the problem was slight, and they could all open fire. If the target were obscure, other batteries would watch for the bursts of the adjusting battery to try to spot the target. If the target could be located on a map, coordinates would be passed to the reinforcing batteries, for them to plot and compute data. But if there were no map, or if only one observer could see the target, then the problem was difficult. These methods were as ineffective as they look. Tactics and gunnery instructors, who knew the terrain, could mass fires with relative ease, but students at Sill could not. Even hours of survey experience did not permit officers to move from one OP to another and re-identify a target. As a result, batteries called on to reinforce the adjusting battery would almost always attack the wrong target, or futilely splatter the terrain with shell fragments. Therefore, student belief, and inevitably service belief, in the practicability of massed observed fires was low. What was needed was a system whereby anyone who found a target could in effect give firing commands to several batteries.

This, then, was the state of the art when Brewer and his colleagues went out to Tower 3 ridge at Fort Sill that Saturday morning. They moved into splinter-proof dugouts and tried to adjust, using the then current methods of axial and lateral adjustment. These did not work, for they were firing on targets close at hand, and the line observer-target was too short. Moreover, they were trying to conduct firing using Morse code over the radio although they were not radio experts. Here, E. L. Sibert took a long step forward, by suggesting the use of air-observation methods; that is, shifting from a base point to a target. This was most successful, and the adjustment was completed accordingly. Roger M. Wicks, Charles C. Blanchard, and George V. Keyser, all of whom had considerable background in air observation, were the first to use these methods in attacking targets.

Working backward from the target

Meanwhile, Carlos Brewer developed a firing chart using long-base intersection. This advance, and the new forward observer technique—as it can justly be called—were at hand when he decided in 1930 that better and faster methods of fire direction should be worked out. Working closely with his instructors, he decided to plot the base point—or target—with adjusted range and deflection, and from the point so plotted compute the initial data for the other, reinforcing batteries. This would give approximate corrections, make it unnecessary to strip out weather corrections, and permit use of any gridded sheet.

The first demonstration of massed fires, based on the new concepts of adjustment by any observer in the battalion and the use of the new chart, was given at Sill in the spring of 1931. The computers were Preston T. (Tack) Vance and W. A. Campbell. There was one forward observer, whose name has not been preserved. One battery was adjusted by air-observation techniques and the other batteries then brought in. No map was used. Communication was by voice radio.

In early demonstrations and experiments with battalion massed fires it was found that the three batteries rarely put their centers of impact on the same point. Rather, the target lay within a triangle, which of course wasted some of the lethal effect. This was known to be caused by differences in site, for if there were an accurate survey and the differences in site compensated for, the triangle vanished. The puzzle was often discussed, but not solved until at an early morning conference between Orlando Ward, Sidney Dunn, and Russell Barkalow. "Pinky" Ward suggested that they forget about solving the problem from the battery end and work back from the target; that is, adjust on the target, assume zero site, then plot the batteries by back azimuth and adjusted range.

At this point in time the School could report hopefully that "it seems possible for a single observer, well forward with the infantry, to place battalion concentrations every fifteen minutes or less."

During 1933 and 1934 organization and techniques within the fire direction center evolved rapidly. The center was manned by officers, was at the battalion OP, and staff telephones were used as convenient. Equipment comprised plain or gridded paper, or a map on a plotting board, detachable paper arcs struck on a 15,000-yard radius, a straight edge, and pins. Flat corrections were used instead of K. In the first phase of development, the battalion reconnaissance officer, aided by the instrument sergeant, prepared the firing chart and calculated data. In his absence, S2 or S3 might do the job. During the adjustment, a staff officer followed the process, then plotted the adjusted data on the chart. He then obtained initial data for the other two batteries, corrected their adjusted salvos as necessary, then fired for effect.

In the next phase, noncommissioned officers prepared the firing chart under supervision of S3 assisted by any two available staff officers. The draftsman who prepared the firing chart then operated it. The staff officers needed only a general knowledge of fire command and adjustment of fire, and supervised transmission of commands after the S3 decided what the commands should be. Plainly, today's S3 has been freed of many, many duties! This FDC handled only observed fire. Unobserved fires were directed by distributing overlays drawn from the firing chart, and batteries attended to their own corrections, by metric data or by registration.

Finally, in 1934, FDC personnel were: S3, two staff officers, a draftsman, and a clerk. The officers computed, and the clerk helped the draftsman.

From pioneering to refinement

Here, evolution paused at The Field Artillery School. Personnel changed in 1934 and officers who had been pioneers in these techniques went to other posts. The next steps were taken by H. L. C. Jones, in 1937, when he took over a battalion of the 77th Field Artillery at Marfa, Texas. During the first experimental period Jones had been Chief of the Field Artillery Subsection at the Command and General Staff School, as it was then. He had followed the Sill work with keen attention, and Barkalow and Boniface Campbell found him as ready to learn as to teach when they went to the Command and General Staff School.

On taking command of the 77th, Jones began to experiment with fire direction. His first step was to make battalion primarily responsible for preparation of unobserved fires, leaving the conduct of observed fires as the main task of the battery commander. Technically, the battalion could have been given this mission long before, as soon as the firing chart was workable, but as with Columbus and the egg, someone had to be the first to see it. So that the FDC might handle its new load, Jones added three officer computers (one for each battery) and another officer to take angles of site from the observed-fire chart. Batteries for their part were required to be most aggressive in pushing forward observation. In fast-moving situations, Jones required battery personnel to handle observed fires. As soon as the situation stabilized, the battalion FDC, with its skilled fire direction and survey specialists, took over.

In the summer of 1939 Jones was ordered to Sill, to direct the Gunnery Department. There he found the School using methods unchanged since 1935. He proposed using the techniques he had developed at Marfa. His goal was to be able to open surprise massed fires three minutes after any observer had reported a target. After these proposals had been carefully considered by Le Roy P. Collins, then Assistant Commandant, authority to try them was granted in November 1940. Fire direction was formally transferred from Tactics to Gunnery, and George V. Keyser put in charge of that work in the Gunnery Department.

Ahead of European methods

These techniques were far in advance of those used in Europe. At this time, the Germans were teaching that catchy names, such as Dora and Frieda, should be given to prominent terrain features, so that the battalion commander, squinting out from his OP, could order his batteries to place their fires on targets so many meters and so many degrees away from Dora, Frieda, or Adolf. This, of course, was the method of 1918.

Jones proceeded to form an experimental fire direction team to prepare techniques suitable for service-wide use. Personnel were: George D. Crosby, horizontal control operator; Einar Gjelsteen, vertical control operator; Carl W. Miller, Harry H. Critz, and Abbott Burns, computers. The titles were coined by Jones, and the team structure was the one that he had evolved at Marfa.

Seeking to cut the amount of computation, team members tried to find a way to graphically apply the adjusted elevation to the measured range. First, a strip of paper on which elevations were plotted was used. After the adjustment, the adjusted elevation was marked on the slip, and used to measure elevations. This failed because it meant a different slip for every charge and scale. Paper scales were also too cumbersome because *K* could not be applied mathematically. After the team gave several demonstrations in late November 1940, Abbott Burns suggested the logarithmic plotting of scales, which could thus automatically apply the *K*, and so invented the graphical firing table.

Massing of divisional and corps artillery

At this point, the technique of rapidly massing the fires of a battalion, upon targets identified by forward observers working in close support of infantry and armor, was mature, even though not fully perfect. The next step needed was to find a way to mass division and corps artillery. This problem was of course as old as the campaigns of Napoleon. The accepted solution had been to mass guns hub to hub, and use the fire-control methods sketched above. In the spring of 1940, the Air-Ground Procedure Board had tackled the problem and tried many ideas, without too much success. However, use of the observed-fire chart was explicitly considered.

In April 1941, the Army Chief of Staff, George C. Marshall, visited The Field Artillery School and was shown a four-battalion shoot. It was fired from map data, and did not include massing of fires based on an observer adjustment. Marshall doubted the School's ability to mass division artillery without a map, so Einar Gjelsteen was set to devising an artillery technique which would permit that. Shortly, he developed a method of coordinating battalion observed-fire charts by having one gun in each battalion register on a division artillery check point. This permitted massing of division artillery by any observer, regardless of the chart's being based on survey adjustment.

Final approval to the new techniques was given by the Chief of Field Artillery, Major General Robert M. Danford, after witnessing a demonstration in October 1941. With this approval, modern, rapid, massed fires came of age. Because observers could intervene to control prearranged fires delivered in support of an attack, the old problem of the barrage's walking away from the infantry was gone. Prearranged fires were quickly prepared. Once battle began, forward observers right up with the infantry could place fire where the infantry needed it, and when they needed it. Artillery had come a long way since a very gallant British gunner had concluded that "unobserved shooting is very dull, and often, I fear, very ineffective," and with his signallers gone out to remedy the matter.

The Army's field telephone system is about as advanced as electronics can make it, but it won't perform up to par unless we users change some of our methods and habits

Pentomic Age Telephony

COLONEL CHARLES W. GIBBS

WHILE this article deals with some basic communications theories, its primary purpose is to discuss two rather familiar subjects—the field telephone, and the soldier who uses it. To derive the maximum benefits from his field telephone, he must discard some outmoded procedures and adopt some new ones which are simple and easy to use.

The most complex thing on any battlefield is a soldier. Controlling him and coordinating his actions have always presented the most challenging problems faced by commanders. The individual soldier, in my opinion, is still the ultimate weapon, and he is the person who will push the button, pull the trigger, or start the automatic machines in future wars. But someone must tell him when to push the button, or otherwise "coordinate" his efforts by speaking to him. You can depend upon the American soldier to use all of his ingenuity in figuring out *how* something should be done once he has "gotten the word" as to *what* needs to be done. My guess is that in telling him what needs to be done, the telephone will be used to pass the word, and he, as user of the telephone system, should be its master. Let's not confront the soldier in the field with a set of ground rules which are radically different from those he used at home when he called his "steady" on the phone.

This means that we must devise procedures which the two-year soldier can assimilate and use with a minimum amount of training. The number of new things which must be learned by a soldier entering the Army today leaves precious little time for him to practice what he has learned. Therefore, he should not undergo a needlessly long course of instruction in order to learn the operation of a tactical telephone system, nor should it be necessary to understand the technical operation of the system in order for him to make a telephone call. Much work is being done by appropriate agencies to simplify these procedures and to make tactical telephone systems as automatic as possible. Equipments and techniques are now under development which will make dial telephones commonplace, even at the lower echelons.

Col. Charles W. Gibbs, *Signal Corps,* enlisted in 1934 and was commissioned in 1940. He was Signal Officer, 63d Infantry Division from activation through its service in ETO. Since then he has commanded signal units and served in staff capacities up to theater level. He was Operations Officer, Communications Division, AFFE, in Japan, a member of the U. S. Army Signal Board, and is now Signal Officer at the Air Defense School, Fort Bliss, Texas.

Telephone systems conversation capacity

Probably the most significant change in the tactical telephone system can be illustrated by a general comparison of telephone systems organic to the triangular infantry division of World War II and the new five-combat-group Pentomic division of 1957. The new division telephone system has a voice channel capacity many times greater than that of the old. For example, in one leg of the new division system, up to twelve simultaneous telephone conversations can be carried over one pair of wires or one radio relay circuit, as opposed to only one conversation per pair of wires, plus maybe a teletype or so, or four channels per radio relay circuit in the old system. The total switchboard capacity of the new division is considerably greater than that of the old division, plus the fact that the new division switchboard capacity is distributed over the division area to be convenient to users and to minimize losses of communications when the atomic cookie-cutter lands in the division area. This dispersed capacity system is referred to by many as the grid system. It is also referred to by some as something new. I hasten to point out that the principle of "area" communica-

tions has been operating in actual practice for more than thirty years, and that the only thing new about it is the application of these principles to tactical signal systems.

The impact of mobility

The various switchboards, multichannel carrier gear, radio relay gear, and the like, which are necessary to achieve the increased conversation-carrying capacity, must be so packaged (in vehicles, shelters, helicopter pods, and so on) that the packages are just as mobile as the units which they serve.

It is obvious that the advantages of mobility, increased channel capacity, greater range, electrical flexibility, and dependability in a telephone system cannot be achieved without adding some degree of technical complexity to that system. Few of these advantages are compatible with stark simplicity in systems design.

The black boxes in use today as part of modern communications systems are becoming more and more complex internally. However, there is a ray of sunshine in the fact that equipment designers are simplifying the external controls of these boxes. The science of human engineering is making possible the operation of tremendously complex devices by the average person without the necessity for any special technical training. Even with all the advantages thus gained, the new division communications system is still fairly complex when you hook all the black boxes together as a system. Continuous efforts are being made to hold this system complexity to the absolute minimum.

Since the telephone users are highly mobile, and the communications system is also mobile, this mobility creates the problem of insuring telephone contact between key individuals. One problem is the maintenance of up-to-date telephone directories and the training of operators to handle telephone calls with a minimum of operator training. Can we perhaps solve some of these problems by using the human engineering approach in the operation of our tactical telephone systems and thus keep the internal complexity of the system from being passed on to the customer? The answer is Yes. We certainly can and must. To solve these problems, several changes in our basic philosophy about telephony in the Army are necessary.

If the new infantry divisions should be committed tomorrow, they would go into battle with equipment packaging and a type telephone system designed to operate as an area system, but we, the users, are accustomed to procedures designed for an axis of signal communications type system, which is tied to points on the ground with the switching functions of the system all being performed in the CPs of the various headquarters. This would result in poor telephone service, even though the telephone equipment were the world's best.

Are anagrams necessary?

Another thing which users of the military telephone have grown accustomed to is that fascinating (to some communications officers) and confusing (to his telephone subscribers) game of anagrams, known as "telephone directory names." These names are associated with an echelon of command or with a unit headquarters. Each name begins with a different letter of the alphabet, the initial letter being issued by higher headquarters. This system of telephone directory names was fine so long as there were no more switchboards in the field army than there were letters in the alphabet.

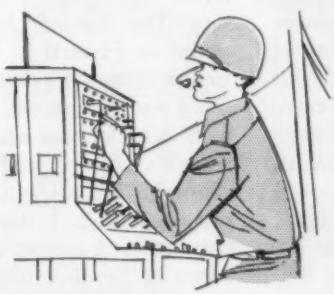
The inflexibility of the alphabet results in making the game more interesting for communications officers and causes them to come up with some rather weird combinations, such as Xylophone Red Rear.

Remembering these words and using them correctly requires considerable effort at times. Some outfits in the past have incorrectly considered their assigned telephone directory names as code words and have classified these words confidential. This in the face of the fact that there is absolutely no security in a simple anagram.

I suppose the communications officers who participated in this code-word idea figured that the practice would confuse the enemy. I have never seen any tangible proof that the enemy was confused, but as to the confusion of our allies, there is no doubt. I have seen repeated examples of considerable confusion between outfits of the same division! Any Army switchboard operator who has worked in the Far East will tell you that you have not really lived until you have heard some of our Oriental friends try to say "Robin Red Advance."

For the benefit of any diehards who still think of the telephone directory name as a code word, I offer the following: (1) The Eighth U. S. Army used the same telephone directory name "Octagon" for several years in the war (and in hundreds of different CP locations all over the map) as well as in peace. (2) On the front of every military telephone directory appears some such phrase as "Warning—telephone is not secure. Don't discuss classified. . . ."

"Operator, who the hell is Hound Dog?"



"Would you repeat that again, Sir?"

ARE ANAGRAMS REALLY NECESSARY?

It should be remembered here that the existence of a tactical unit is usually unclassified military information. However, that unit's exact location on the ground is highly classified information. In view of these two facts, if we place any security value on directory names or use them as code words, or associate them with the unit location on the ground, we are simply kidding ourselves and placing an unnecessary burden on the telephone subscriber.

Exchange names, not anagrams

Any modern telephone system does, however, need names for telephone exchanges in order that the same numbers can be used over and over in each exchange, to simplify the routing of telephone calls, and to expedite control procedures. The average telephone user does not know or care where Murray Hill telephone exchange is physically located on the ground. When he dials MUrray Hill 8-9933 and gets his party on the other end of the line, it matters not to him whether the Murray Hill exchange is located at 23d Street and Broadway, or in the middle of a cranberry bog in Hackensack.

The tactical telephone systems are rapidly growing in line capacity and therefore their numbering requirements and the necessity to expand the numbering systems have outgrown the little game of anagrams. In addition, the electrical routing of calls is creating new technical problems, such as patching and maintaining the many direct circuits required by the weapons systems.

During the past four or five years since the area type or grid communications system has been introduced within the division, it has become increasingly clear that in order to be completely effective, the procedures must possess some key characteristics which are not now present in Army methods of operation. (1) A simple and easy-to-understand telephone directory must be devised which should be as similar as possible to the ones we have in our homes. (2) The telephone exchange names and numbering schemes should follow some pattern which can be remembered by association with something we already know, and which will expedite rather than hinder the routing of calls. (3) Telephone call routing procedures should be completely independent of locations on the ground. For example, the telephone subscriber should not be concerned about the routing of his call on a tactical system, any more than he is back home when he calls San Francisco from New York. The subscriber cares little whether his call from New York to San Francisco is routed through Memphis or Chicago, just so long as he gets San Francisco. This characteristic is particularly important because the degree of mobility which we have today will require changes in electrical routing of calls many times daily, and no subscriber should be expected to keep up with these changes in routing. (4) Finally, the telephone user should be able to glance at a telephone directory and find a number, then pick up the telephone and call the number as listed. The mechanics of getting his party for him should be of no interest to him whatsoever, but should be accomplished by the system.

I have devised a system of exchange names and telephone numbering which I believe is more acceptable than our present system. It will fit the telephone systems being provided in the new divisions and it will be compatible with dial telephone equipment if and when it is provided to these divisions. It would be presumptuous to assume that there are not already in existence better numbering systems, or that the one I propose herein has not already been thought of. I simply toss my proposal out on the table to stimulate the thinking of those who if not operators of the telephone systems of the future will most certainly be its users.

Anagrams are out

My first proposal is that we scrap once and for all the anagram game with its directory names such as Fragrant, Fungus, and Fumigate, and place it in the archives of the Army, along with the crossbow, the flintlock musket, and the carrier pigeon, and that we replace it with a system something like this:

Theater	**UNiversal**
Army group	**INternational**
Army	**FEderal**
Corps	**REgional**
Division	**STate**
Regiment	**COunty**
Battalion	**CIty**
Company	**TOwn**
Platoon	**VIllage**
Detachment	**CRossroads**
TDY within parent division	**MAverick**
Attached by higher headquarters	**VAgabond**

Since the directory names we have now are unclassified, and since we are not tying the telephone system to coordinates on the map or points on the ground (which are classified), and since we can't discuss locations of CPs over the telephone anyway, the telephone number of the 74th Infantry Division would be STate 74, regardless of the division's location or mission. The Seventh U. S. Army telephone number would be FEderal 7. Instead of being OCtagon, the Eighth Army's telephone number would be FEderal 8. Since we have several companies in a division, Company A's telephone number would be TOwn 1, Company B's TOwn 2, and so on. There would be no more confusion in having two companies with a telephone number TOwn 1 than there is now by having two Companies A in two different battalions. Many variations of the unit numbering system can be worked out to fit exactly the troop list and any of the new divisions. I have worked out two or three different versions, any one of which would probably work if kept simple. An excerpt from a typical division telephone directory using this system might look like this:

369th Infantry	COunty 1
374th Infantry	COunty 2
381st Infantry	COunty 3
225th Engr C Bn	CIty 1
334th Recon Bn	CIty 2
Co A 369th Inf (Temporarily attached to 381st Inf within same division)	MAverick 1
Co A 318th QM Bn (Army troops attached to Division)	VAgabond 1

It should be noted that the two initial letters of each of these telephone exchange names: FEderal, REgional, STate, COunty, and so on, are all different, and would be directly applicable to a dial system in exactly the same manner that we dial the MUrray Hill exchange in New York City. Local telephone numbers would be exactly the same as the numbering system used in tactical telephone systems today. (See FM 24-5.) For example, G1 or S1 is always "1." The commanding officer is always "6." Therefore, the commanding officer of the 369th Infantry could be reached by calling COunty 1-6.

Payoff

With a simplified system like the above which could be keyed by mental association to our political structure which everyone already knows, it seems to me that the training problem of both the telephone operating personnel and of telephone users would be greatly simplified, and that we would have achieved within the Army some of the characteristics enumerated above. And once we got in the habit of using the system, we would not have a great need for printed directories. In addition, I believe that we would be exploiting to our own advantage the fundamental principles of human engineering and would have for our efforts a better-working tactical telephone system. Let's stop trying to make a telephone engineer out of every soldier who merely wants to use the telephone.

1958 REUNIONS

1st Armd Div. 22-23 Aug, Kentucky Hotel, Louisville, Ky. Write Col. L. B. Conner, 1529 18th St, NW, Washington 6, DC.

1st Cav Div. 29 Aug-1 Sep, El Cortez Hotel, El Paso, Tex. Write Col. E. P. Stone, Box 201, Pomona, Calif.

1st Inf Div. 3-6 July, Hotel Statler, Los Angeles, Calif. Write Arthur L. Chaitt, 5309 Germantown Ave, Philadelphia 42, Pa.

2d Inf Div. 31 July-2 Aug, Congress Hotel, Chicago, Ill. Write Col. C. J. Hirschfelder, 214 W. Agarita, San Antonio, Tex.

3d Armd Div. 24-26 July, Waldorf-Astoria Hotel, New York City. Write Paul W. Corrigan, 80 Federal St, Boston 10, Mass.

3d Inf Div. 11-13 July, Olympic Hotel, Seattle, Wash. Write Harry Cedar, 1129 Warner Bldg, Washington 4, DC.

4th Armd Div. 10-12 July, Hotel Statler, Buffalo, NY. Write A. J. Passanante, Box 42, Kearny, NJ.

4th Inf Div 31 July-2 Aug. Henry Hudson Hotel, New York City. Write Iz Goldstein, 1276 E. 54th St, Brooklyn, NY.

5th Armd Div. 14-16 Aug, Hotel Roosevelt, New York City. Write Mrs. Clair E. Watrous, 8549 Lowell St, St. Louis 15, Mo.

6th Armd Div. 28-31 Aug, Hotel Roosevelt, New York City. Write Edward F. Reed, Box 492, Louisville 1, Ky.

6th Inf Div. 5-7 Aug, Denver, Colo. Write James E. Wittstruck, 4201 B St, Lincoln 10, Neb.

7th Armd Div. 15-17 Aug, Penn Sheraton Hotel, Pittsburgh, Pa. Write Johnnie Walker, 375 Valley Road, Haworth, NJ.

8th Armd Div. 4-6 July, Park Sheraton Hotel, New York City. Write Henry B. Rothenberg, 134 N. LaSalle St, Chicago 2, Ill.

9th Inf Div. 31 July-2 Aug, Deshler-Wallace Hotel, Columbus, Ohio. Write Stanley Cohen, Box 66, Livingston, NJ.

11th Armd Div. 14-17 Aug, Hotel Lowry, St. Paul, Minn. Write Harry Walsh, 475 Cedar St, St. Paul 2, Minn.

12th Armd Div. 31 July-2 Aug, Sheraton-McAlpin Hotel, New York City. Write Lawrence E. Mintz, 4310 W. Buena Vista Ave, Detroit 38, Mich.

16th Armd Div. 8-10 Aug, Hotel Sherman, Chicago, Ill. Write James E. Austin, 100 Dee Drive, Linwood, NJ.

24th Inf Div 15-17 Aug, Chicago, Ill. Write Edmund F. Henry, 402 First National Bank Bldg, Attleboro, Mass.

25th Inf Div. 25-27 July, Hotel Statler, Buffalo, NY. Write Lt. Col. Edward J. Callahan, Box 101, Arlington 1, Va.

26th Inf Div. 19-22 June, Roger Smith Hotel, Stamford, Conn. Write H. Guy Watts, 200 Huntington Ave, Boston, Mass.

30th Inf Div. 9-11 July, Sheraton-Park Hotel, Washington, DC. Write Maj. Saul Solow, 42 Parkway Drive, Hicksville, NY.

33d Inf Div. 13-14 June, Morrison Hotel, Chicago, Ill. Write George D. Radcliffe, Room 508, 79 W. Madison St, Chicago 2, Ill.

36th Inf Div. 29-21 Aug, Hotel Texas, Fort Worth, Tex. Write CWO Archie H. McDugal, 523 Franklin Ave, Waco, Tex.

37th Inf Div. 29 Aug-1 Sep, Deshler-Hilton Hotel, Columbus, Ohio. Write Jack R. McGuire, Room 1101, 21 W. Broad St, Columbus 15, Ohio.

38th Inf Div. Louisville, Ky. Write Walter Rickett, 520 St. Joseph Ave, Dayton, Ohio.

41st Inf Div. 18-20 July, Hotel Multonomah, Portland, Ore. Write S. B. Huntting 526 NW Broadway, Portland 9, Ore.

42d Inf Div. 12-14 July, Deshler-Hilton Hotel, Columbus, Ohio. Write R. Allen Gibbons, Box 342, Roanoke 3, Va.

63d Inf Div. 1-3 Aug, Hotel Statler, Detroit, Mich. Write Robert C. Capasso, 34 Lincoln St, Norwood, Mass.

69th Inf Div. 22-24 Aug, Waldorf-Astoria Hotel, New York City. Write Irving Botkin, 278 First Ave, New York 9, NY.

76th Inf Div. 15 June, Commodore Hotel, New York City. Write Maj. Gen. Henry C. Evans. 6 S. Calvert St, Baltimore 2, Md.

80th Inf Div. 6-9 Aug, Hotel Kavanaugh, Harrisonburg, Va. Write M. H. Levine, 205 House Bldg, Pittsburgh 22, Pa.

82d Abn Div. 3-5 July, Hotel Statler, New York City. Write Carl A. Helgren, 3968 Katherine Ave, Dearborn, Mich.

83d Inf Div. 21-23 Aug, Biltmore Hotel, Dayton, Ohio. Write George Cooley, 1459 Beechwood St NE, Warren, Ohio.

84th Inf Div. Aug, Miami, Fla. Write Lee C. Allen 3815 Westview NW, Canton, Ohio.

86th Inf Div. 30 Aug-1 Sep, Hotel Seelbach, Louisville, Ky. Write James B. Dickerson, 1049 Park Ave, Paducah, Ky.

88th Inf Div. 13-16 Aug, Penn Sheraton Hotel, Pittsburgh, Pa. Write Sidney Heyman, 2017 Forest Dale Drive, Silver Spring, Md.

94th Inf Div. 17-20 July. Hotel Manger, Cleveland, Ohio. Write A. E. Rodriguez, 1417 W. Addison, Chicago 13, Ill.

99th Inf Div. 18-20 July. Sheraton-Mayflower Hotel, Akron, Ohio. Write John E. Cummings, 3022 W. Cary St, Richmond, Va.

101st Abn Div. 15-16 Aug, Sheraton-Gibson Hotel, Cincinnati, Ohio. Write Col. L. B. Conner, 1529 18th St NW, Washington 6, DC.

102d Inf Div. 13-20 July, Ambassador Hotel, Atlantic City, NJ. Write Lewis E. Bragke, 8120 Grayfield, Dearborn, Mich.

103d Inf Div. 23-25 May. Augusta House, Augusta, Maine. Write Walter M. Jones, 87 Bay State Ave Somerville, Mass.

104th Inf Div. 30 Aug-1 Sep, Schroeder Hotel, Milwaukee, Wis. Write Howard S. Bedney, 695 Hewlett St, Franklin Square, NY.

106th Inf Div. 25-27 July. Bellevue-Stratford Hotel, Philadelphia, Pa. Write John I. Gallagher, 4003 Frances St. Temple, Pa.

THE MONTH'S CEREBRATIONS

QUARTERMASTER REPLACEMENT UNITS

CHIEF WARRANT OFFICER EUGENE W. HILTON

Modern warfare places quartermaster supply support in great jeopardy. "Safe" rear areas are a thing of the past. Once committed to action, combat commanders often will have to rely on the logistical support they can carry with them. But they cannot subsist indefinitely on the "camel's hump." Only quartermaster depots and supply points can replenish expended food, fuel, and combat boots. But how, if they have been blasted off the map? Either we find a means to go on supplying the troops, or the troops give up the battlefield. There is no single or simple solution!

To counter the atomic potential a complex of small general depots, with possibly three days of selective supplies at each, could avoid the loss of an appreciable portion of logistical support through a single enemy blow. Some quartermaster activities may go underground. Improved rear area damage control measures, and an interdependence of areas and subareas, would minimize the killing effects of a single atomic blast. Electronic means of requisitioning and a simplification of requisitioning procedures should speed replacement items and shift the logistical posture to soften the punch. Nonetheless, there is neither assurance that the electronic means will be less vulnerable than traditional communications lines, nor that "pony-express" methods may not be the surest after all.

We are reorganizing the logistical elements of the deepened atomic battlefield to withstand a single atomic blow, multiple blows, or saturation blasting. We are developing road-free vehicles, which may replace the channelized main supply line with a crisscross of logistical aisles. We also talk of "leaping" obstacles through the use of a whole airborne family of cargo carriers. Aerial delivery is in the ascendancy. Low-altitude delivery by Rotochutes zinged from jets has been tested. "It is strikingly apparent," says General Maxwell D. Taylor, "that the time has come for the Army to recognize the need for achieving a maximum degree of air transportability. . . ." He is right. But "leaping" is expedient in direct proportion to the tenability of the airspace! No matter how effective and clever the selected device may be, getting there is the payoff.

Another possibility is an assortment of super-mobile "department store" depots that could be made up on vehicles, railroad trains, surface ships, canal barges, submarines, and aircraft. This concept could be a partial solution. But somebody—some quartermaster—must be on the ground up front, keeping the supplies coming through and parcelling them out. Had we not best match our well-laid plans for rapid communications, dispersion, and mobility by also thinking of *in toto* replacement?

The magnitude of replacing entire quartermaster activities and stocks at all levels, quite obviously, approaches the *n*th degree. We have neither the men nor the means. But unless we presume one big bang and then it's all over, some workable replacement scheme must be worked out. We will need to win a war of logistical attrition, as well as a joust at arms. Dispersion is only partial insurance, as are all the other tricks to avoid being hit by a nuclear blow in the first place.

The "cellular" concept, around which TOE 10-55, Quartermaster Service Organization, is built offers a replacement unit that could be "at the ready." Among the missions assigned the various cells (known as teams) is the performance of specialized quartermaster functions where less than company-size units are required. A "cell 500" may be attached or assigned to fixed strength units, or several may be organized into a composite service unit. Their capabilities vary with the size and grouping of the teams. As an example, Team BD, Petroleum Dispensing Detachment (Semimobile), provides personnel for the operation of a petroleum distribution point, capable of packaging bulk gasoline at the rate of 36,000 gallons per day. There are also labor supply and graves registration detachments. The variety is legion. The creation of more may be necessary to ride out a nuclear blow. Why not form up, train, and have specialized teams ready for *in toto* replacement of "atomized" quartermaster support units? An army supply point operates as close to the supported combat troops as possible. Couldn't we have a 500 "Supply Point Team," ready to go into action?

Cellular replacement is a concept that at least furnishes a starting point, and has an "in-being" virtue. Supply elements will be equally as hard hit as combat troops in a war of atomic plenty. The combat arms accept the thesis that replacement of entire battle groups or divisions will be required in future combat.

Quartermaster cellular replacements of many different capabilities could be held ready in the Communications Zone or elsewhere. Such cells (or teams) should be austerely equipped, and stocked with a reasonable operational level of resupply. They could then be shifted rapidly to replace army supply points (or other essential support elements) that had been obliter-

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ated. Stand-by "second teams" may seem wasteful, but this is not necessarily so, for they would not sit in idleness "on the bench." For training and administrative purposes, such teams could be attached as integers to an operational installation. In this capacity, they would supplement an always-short force, and furnish resources for the growing demand for rear control and defense. Concurrently, they would train and equip for their primary team operation. A composite service unit should have a mission other than training, and cellular teams need not be single purpose elements. A reasonable amount of cross-MOS training would make some of them available as effective emergency replacements in a variety of quartermaster assignments. If destruction is *in toto*, there should be an ability to fill the void—*in toto!*

***Chief Warrant Officer Eugene W. Hilton** has more than thirty-three years of active and inactive service, sixteen years in active commissioned status, lastly as lieutenant colonel, Infantry. He is now Assistant Chief, Doctrine Branch, The Quartermaster School.*

SECOND LIEUTENANTS AND AUTOMATIC PROMOTION

CAPTAIN J. H. WALLWORK, JR.

The policy of automatic promotion from second lieutenant to first lieutenant after eighteen months of service should be revised. Today most commanders recommend the promotion of a second lieutenant after eighteen months, unless his performance has been completely unsatisfactory. The shavetail who has done an exceptional job and who deserves the promotion receives no tangible recognition, because his associate who has performed in a mediocre way is promoted at the same time.

I think that if approximately the top half of the second lieutenant list were promoted after eighteen months, the next quarter after twenty-one months, and the bottom quarter after two years, the caliber of junior officers would be improved. This would encourage competition and would really mean something. In certain exceptional cases, however, an officer should not be promoted at all after twenty-four months. Those who serve two years and just slide by should not be awarded silver bars.

Such a policy would give most of our junior officers a real incentive for promotion. As it is now, the thrill and the feeling of achievement are dimmed because the promotion is automatic.

***Captain James H. Wallwork, Jr.,** Corps of Engineers (USMA 1952), commanded a company in the 7th Engineer Combat Battalion in Germany. He is presently aide to the CG, 50th Armored Division, NJNG.*

ARMS FOR THE LEADERS

CAPTAIN RONALD F. OCHIS

One field receiving particular attention these days is the infantryman's new weapons system, the M14 and M15 rifles, the first change in the soldier's personal armament since 1936, when the M1 was adopted. This conversion is good, and shows that we have progressed, but what stands out is the fact that the company-grade officers of the battle group are to be armed with the M14.

We are told that tomorrow's tactics will require greatly dispersed battle groups, with thousands of yards between companies. If this is so, the problem of controlling his men will concern the leader more than ever before. The degree of control the company officer will be able to exercise will of course depend on his mission, his subordinates and the measures available to him. And in considering the degree of control he will exercise, the question that immediately comes to mind involves his personal weapon. Should he be armed with a type of rifle as in World War II and Korea, or with a pistol as he was before those affairs?

Combat conditions will also decidedly influence the type of weapon he must carry. Situations will arise where he must use both hands on a radio or a map, so he must have a weapon that will not restrict his actions. What weapon would be ideal for these situations, his mission, and the state of the battlefield?

It seems that most company officers prefer the recently adopted M14. True, this weapon has the advantages of high rate of fire, accuracy, and durability. However, it is heavier than the carbine, and requires both hands for consistent accuracy. It is cumbersome and must be laid down or slung whenever both hands are required. Also, arming the company officer with a weapon like the M14 encourages him to engage an enemy at long ranges. When he fires such a weapon, he loses control of his men and becomes a rifleman himself.

How about the submachine gun—something along the lines of the old Thompson or the M3 grease gun (one weapon the M14 is to replace)? These offer firepower and accuracy up to a hundred yards. The loaded Thompson weighs at least 14 pounds and the M3 12 pounds. Besides the weight handicap, they require both hands for accurate firing.

The questions "Why have such firepower?" and "Why not a semiautomatic weapon that will cover an area with only one round instead of the several required from a conventional rifle or pistol?" bring to mind the shotgun, considered in certain circles the ideal weapon for the company officer. (I think the Geneva Conventions have something to say about use of shotguns.) This weapon obviates point accuracy, since one round can cover a fairly wide area. The 7.5 pounds of what we call the riot gun are not too heavy for one man. Rate of fire could be automatic or semiautomatic (as with sporting models). Here again is a weapon that affects efficiency of control. Two hands are needed to fire it. Carrying it slung would be convenient, as with the weapons already mentioned, but it would be fairly clumsy to bring from the slung to a firing position. The lethality of the charge varies with range. A full charge of double-O buck is certain to kill. However, after the shot have spread (unless the target is struck by more than one pellet in a

vital area), they provide no great killing or stopping power.

Some extremists say an officer should carry no weapon, because his primary concern is controlling his men. Without a weapon he is not likely to become involved in the fire fight. Others argue that the idea of a weaponless officer is all right for people in built-up rear areas—if we have such areas in a future conflict—but that the officer facing an enemy at a thousand yards or less should have some means of defense, if merely to give him a feeling of security such a personal weapon provides.

I do not hold for the extreme of no weapons, nor do I think the company officer should carry a rifle or any weapon of its length. The pistol best meets the characteristics desired in a personal weapon. It is light and not cumbersome, affords close personal protection, and deters one from engaging in a personal shooting match. It does not distract the officer from his primary mission of controlling the men of his unit.

Let's make up our minds. Do we want control of our units, or do we want company officers who can kill an enemy at five hundred yards?

Captain Ronald F. Ochis, Infantry, *enlisted in 1947 and was commissioned in 1951, was with the 5th RCT in Korea, and later commanded a company in the 82d Airborne Division. He is now on the faculty of The Infantry School.*

THE CURSE OF CENTRALIZED TRAINING

MAJOR UNDERRATED

Pentomic is today's catchword that symbolizes the translation of advanced military thought into positive action. It stresses the truth that operational methods and equipment are never constant but are being revised continually due to technological breakthroughs.

We've gone Pentomic except for the training of the infantry soldier, who remains as ever the key to the success of anything new in ground warfare. We give a great deal of lip service to the exacting demands of the modern battlefield, but our training systems do not view them in a proper perspective. Training methods in most infantry training centers and in many infantry divisions do not differ in any major respect from those used before we went Pentomic.

Centralized training is the vogue. No one disputes its value at basic training centers where recruits learn the rudiments of soldiering and then move on. It is in combat units that the insidious effects of centralized training are felt. The system is strictly assembly-line and fails to develop the human side of the profession of arms. Not only does the soldier fall victim to this form of educational automation, but his leaders are being cast in the same mold. This is serious.

Young lieutenants with little service are withdrawn from their platoons and developed as trainers rather than leaders. Some instruct only in marksmanship, others only in squad and platoon tactics. This is the curse of the centralized training system: the transformation of leaders into specialists who become expert in a certain field. No doubt this method offers certain advantages. It is ideal for training technical specialists, is economical in manpower, and produces adequately trained combat soldiers with everyone trained to an identical standard. It is easier on instructors who have become proficient only in a limited field, and removes a large part of the training burden from the unit commander.

I question, however, if the gains accruing from this system outweigh the disadvantages. When related to the special demands of atomic warfare, these disadvantages become even more evident.

How does the atomic battlefield differ from those of World War II and Korea? Exactly what are these "special demands" that necessitate a further look at something as basic as our training procedures?

Latest doctrinal concepts teach that independent small-unit actions will characterize atomic combat, and emphasize that frequent isolation can be expected as normal. Too, they advocate the use of combined-arms teams at the lowest levels, often in the shape of platoon-size mobile task forces. Perhaps most important, they underscore the premise that success will require an unprecedented degree of teamwork and precision.

Can centralized training in combat units prepare troops and junior officers to function effectively in this novel environment? The answer to that lies in considering and evaluating several fundamental factors.

First, let's look at the soldier. Under centralized training he spends little time with his platoon leader. His combat team, therefore, seldom is completely assembled to function as it would in battle. He gets no chance to develop that full confidence in his commander so essential to success. Separation from the leader who will control his destiny at a time of crisis prevents him from understanding his leader's methods and reasoning processes. It is clear that only habitual, close association can generate the teamwork the small unit must have to sustain itself when cut off or hard pressed in combat.

Now consider the plight of the young lieutenant. Does Lieutenant Alfa become militarily broader by teaching marksmanship in Company B while Lieutenant Bravo is teaching tactics to Alfa's platoon in Company A? How can Alfa train his own unit to respond to his orders without hesitation? When does he earn the respect of his men? Where does he acquire the professional knowledge and flexibility demanded by the atomic age when his own training is confined to a single field? Can he live apart from his unit and still instill the *esprit* that will give it a personality of its own?

These issues are intangible for the most part, but none the less they are vital. Our training system must recognize that the unit and its commander are inseparable. The leader must train the men he leads in every phase of military life, from caring for foot blisters to assaulting an enemy position. Nothing less than this can provide the fine degree of harmony required for operations dominated by atomic weapons.

Let's eliminate centralized training for combat soldiers. Free the young lieutenants from the limitations of specialization and permit them to expand professionally. Let the company commander's greeting to a newly assigned lieutenant include this: "This is your platoon, Lieutenant. You are going to train it. It will become what you make it and it will fight as you teach it to fight."

THE MONTH'S READING

Will It Work in War?

MAJ. GEN. JOHN M. WILLEMS
Chief of Staff, USAREUR
12 February 1958

All platitudes to the contrary about "Peace through Strength", "Being strong to deter War", etc., when you come down to the basic reason for its existence, the United States Army exists today because a military force is required in being, or as a nucleus, to be able to fight and defeat the land forces of the Soviet Union and/or her allies.

If we are developing an Army that is not capable of effectively meeting this basic mission, we are foisting upon the American people a most despicable hoax and a most tragic deception.

Perhaps subconsciously influenced by our traditional attitude toward war, our postwar demobilization and our sincere objective of a peaceful world, I sometimes wonder if everyone in our Army establishment appreciates the overriding requirement to produce a fighting organization.

In the interests of peacetime management, accountancy and budgetry under the commercial and industrial influences introduced into our defense establishment in recent years, we have witnessed the growing civilization of the support operations for our fighting forces. This is evident in our present concepts not only in our supply systems but also in procurement, and in the day-to-day management of our military forces.

Now I speak of these developments not in criticism or opposition. I accept that those Americans who have developed these concepts are as patriotic and as dedicated to the security of our country as I consider myself to be. Nor do I feel *qualified to,* or *called upon,* to indulge in critical appraisal of these trends in support organization evident since the end of Warld War II.

My major concern as a soldier is: *Will they work in War?*

I have asked this question before and I have been assured they *will.* Yet back of that assurance has always been evident the escape thought: "If they don't, we'll throw them out and get a system that *will.*" . . .

First of all, I am personally convinced that within the foreseeable future the United States Army will again be in combat. Whether it be limited or total war remains for the future to unfold. As to what is meant by the "foreseeable future"—let us place that period from now to fifteen years from now.

When war comes, it always comes relatively quickly, and in this era of history speed of events gives every indication that we shall have no long period of preparation.

Now I am not endeavoring to convince you of the absolute probability of war, but I believe most of you will agree that we face serious danger of either limited or total war even though hostilities may come through miscalculation. And if this war should come—or as I personally view it, when this war comes—no one of us would want to share the guilt of having contributed toward an unsound Army establishment.

The impact of war with our only potential enemy today will be too sudden and too cataclysmic to gamble on chances for major reorganization after the fighting starts. I am very much afraid that if we are not properly prepared to prosecute the war at its inception we shall have lost our prospect of victory. . . .

We must continuously ask ourselves: "Will it work in War?" And if at any time there is serious doubt I enjoin you, for the love of your country, to voice your concern and to throw your influence into building in our Army the management and accounting systems that will assist in making it *an effective fighting machine* and not merely an efficiently run big business.

No Basic Conflict

GEN. WILLARD G. WYMAN
Commanding General, CONARC
Address, Air War College
11 December 1957

In my opinion, there is NO *basic* conflict in doctrine whatsoever between the Army, the Navy, and the Air Force!

Despite what I sometimes read in the pages of our service journals and the staff studies of our word-bird Indians, I refuse to believe that the doctrine of any service is chained to the obsolete concepts of the gunpowder age. I refuse to believe that the fundamental doctrine of any member of our tri-service team was dictated once and forever by an Italian staff officer named Douhet and a Prussian staff officer named Clausewitz. What could be more absurd in our nuclear age than the precept of Clausewitz that any attempt to limit the application of force in war is an "absurdity"? What could be more suicidal than to rely solely upon Douhet's short cut to victory in an age when his short cut is a two-way street to total destruction?

I believe that the Army is not alone in recognizing that a dynamic change has taken place in our military environment during the last decade—not alone in realizing that we must think anew if we are to respond anew. I believe that professional thought throughout the services is moving rapidly in the same direction—toward the concept of a full scale of flexible and usable force for a flexible national strategy! I believe that the American people are mov-

ing toward the realization that they must sacrifice much of the frosting on our standard of living in order to keep the cake!

I believe that we are moving toward all of this in our public and professional thinking but I am equally convinced that American minds and hearts and hands must move faster now than ever before. As always the race is to the swift and laggards die ignominiously!

It is true that there are some points of surface friction between the three services as we move in the same direction —particularly where our roles, missions, and means overlap. But who ever heard of a good suit of armor that did not overlap at vital points? How safe would our national armor be without some overlap? Who cares if it rubs a bit now and then if it makes our country safer?

Some of our surface friction even produces creative sparks which illuminate the path for all of the services to follow—particularly in the field of research and development. It is imperative, however, that all services receive the benefit of these creative ideas. They should never be hoarded, snuffed out or dampened by bureaucracy or false economy.

There is one kind of surface friction between the three services that we certainly *can* do without: Public bickering and parochial ballyhoo! For a member of one service to knock the legitimate needs of another service in order to promote public esteem for his own is a disservice to all. We should unite our public information efforts and show the American people why we need more dollars for their tri-dimensional defense.

There remains a final bench mark that I must "X in." It is the apex of all military doctrine—the timeless principle of unity of command. Sometimes I call it the "I" factor in war to distinguish it from the "committee" concept of command. Executive committees may work very well for running an industry or business corporation, but not in battle—the big business of our profession. I have yet to see a committee that could vote a battle group up a hill or a bomber over a target. It takes one man who is not afraid to say "I" and face the consequences! One man with the professional competence to know what to do, the guts to decide to do it, and the dynamic leadership to inspire other men to do it with him.

In Europe, right now, Army troops are commanded by an Air Force general; in the Pacific by an admiral. That suits our tri-service doctrine to a T. Regardless of the mission or composition of the joint forces involved, we believe that individual capacity for tri-service command should be the decisive factor in selection. Military command requires the best man for the job and the absolute loyalty of subordinates!

Some day one of my grandsons in Army green may have the privilege of serving under [a man wearing] Air Force blue. If so, I trust that he will be commanded by a man who is more than a scientist—more than a tactician. For our country's sake, I hope that he will be commanded by a man who knows by heart the art of war and what Stephen Vincent Benét with poetic insight called: "The uses of a hill!"

The Capacity to Keep Wars Limited

SEN. CLIFFORD P. CASE
Remarks at dinner of the
New Jersey State Chamber of Commerce
Washington, D. C.
30 January 1958

For some years now our defense effort has been largely built on the possession of ever larger weapons of mass destruction. The development of the A-bomb, then the development of the thermo-nuclear bomb, gave us the power to wreak utter devastation over large areas. In some degree, they provided, and still provide, a shield for the free world, a deterrent against direct aggression against its most vital spots. But everyone knew we would never use these weapons in a war of aggression. And even when the A-bombs were in our hands alone they did not prevent the Communists from nibbling away at the fringes of the free world, constantly probing for soft spots and quick to exploit them.

Some time ago our nuclear monopoly vanished. The Soviet Union also has the capacity to wreak fearful damage and the prospect of an all-out thermo-nuclear war is horrible to contemplate. We are, as it has been aptly put, "in a balance of terror." Now our moral reluctance to use nuclear bombs is reinforced by the power of the Soviet Union to retaliate in kind. And for the Soviet Union, too, the consequences of nuclear war are equally dread.

Let me make this clear—I do not suggest that there has been any real change in the motives of the Kremlin or in its hostility to freedom and democracy. We know, however, that the masters of the Kremlin are hard headed. As such, I am sure they recognize that in a thermo-nuclear holocaust no nation can escape or even survive in any recognizable sense.

A curious, even paradoxical, situation has developed. The more terrible the weapons, the less likely we are to use them short of a direct threat to our very survival. The more we allow the "big bang" to dominate our defense effort at the expense of more conventional capacities, the less able we are to deter or, if necessary, to defeat any lesser aggressions, the greater our vulnerability, and that of all the free world, to Soviet military blackmail. This course, I suggest, could lead only to ever deeper frustrations and, eventually, to utter disaster.

In the circumstances, several points seem very clear. The first, of course, is that our very survival requires us to maintain adequate retaliatory power. We must be able to inflict unacceptable losses on any enemy who might attack us by whatever means.

The second is that reliance upon nuclear deterrence alone is not enough. We must be able, and we must be willing, to cope with lesser aggressions, the little wars against the outposts of freedom that are likely to be far more appealing to the Soviet leaders than direct attack upon freedom's bastions. Only if we are known to have the capacity, and the will, to deal with less than all-out war, is there any hope of preventing it. And only if we have the means and equipment to wage limited war can there be any chance to keep wars limited.

This then must be the measure of our defense position.

Are we prepared and ready to meet not only the massive direct challenge, but the lesser aggression designed to nibble away at the edges of the free world and eventually to push us into lonely and vulnerable isolation?

Have we really thought through the many difficult problems that this involves? For one example, what are the points of vital concern to the United States and the ways in which we propose to defend them?

For another, can we ever use tactical atomic weapons without risking an unlimited extension of hostilities, and, if so, in what circumstances?

Not to face and resolve such questions is to allow decision to be made by default, to permit events to shape policy instead of consciously trying to shape events by policy.

World Leadership Is Not Automatic

SEN. HENRY M. JACKSON
Address, National Military-Industrial Conference
Chicago, 17 February 1958

Now here is a truly sobering point: Russia still produces less than half as many goods as does our nation. Yet despite this existing inferiority in over-all production, the Soviets are ahead in the race for the ICBM; they beat us in the race for the first step into space; and they are swiftly closing the gap in those less important military areas where they still lag behind.

How, despite our overall industrial lead, has Moscow managed to do so much? The answer is of course clear. The ruthless and single-minded Soviet dictatorship has channeled an enormous proportion of Russia's resources directly and indirectly into the goods of war, and into building the factories and training the brains needed to produce these goods.

Since the Korean armistice, an average of only about eleven per cent of our Gross National Product has been spent for national security; the comparable figure for the Soviets approaches twenty per cent. During the past five years, an average of only eighteen per cent of our gross national income has been plowed back into capital formation; the corresponding figure for Russia has been about thirty-five per cent.

Today engineering degrees are being awarded in Russia at more than twice the rate in this country. In 1956, when I visited a high school in Alma Ata in Soviet Central Asia, I asked the principal what subjects he would emphasize that year. He replied: "Science training—in mathematics, chemistry, and physics—according to the decision of the 20th Communist Party Congress." At the University of Moscow with 21,000 students, 16,000 were enrolled in the sciences and only 5,000 in the humanities.

Yes, it is true that the picture on Russian television screens is smaller and less bright than on our own. It is true that Ivan Ivanovitch, if he has an automobile at all, drives one which lags ten years behind American cars in design and performance. It is true that Russian housing is grossly substandard when compared to our own.

But all our television sets, all our automobiles, and all our fine homes will not long comfort us if we fall behind Russia in the competition for world military and political leadership.

The past is prologue. We have no good reason to think that the forward surge of Soviet science and technology will now suddenly be slowed. On the contrary, all indications point the other way. For thirty years, the Soviets have patiently planted the "seed corn" of basic research. Only now is this effort really beginning to pay off in applied technology.

Whereas in 1928 Soviet coal production was only two per cent of ours, by 1957 it was about equal to ours. In 1928 their petroleum output was only ten per cent of ours; by 1957 it had grown to twenty six per cent. In 1928 their steel production was less than ten per cent of ours; by 1957 it was up to fifty per cent. In 1928 their electric power output was less than five per cent of ours; by 1957 it had risen to twenty nine per cent.

Nor have we any reason to expect a reversal of past Soviet emphasis on heavy industry and arms production. In this respect, the present Soviet leaders are no different from Stalin. The publicly stated goal of Mr. Khrushchev, is for the Soviet Union to overtake the United States industrially within fifteen years.

In fact as Russia's over-all productivity increases, more and more goods will be available. Soviet leaders can thus meet the minimum demands of the civilian economy, and they can offer goods for export, without making real inroads into first-priority items.

The military situation today is grave enough, but the true gravity of our problem does not become apparent until we project into the future the present lines of Soviet and American industrial growth. Here is what such a projection shows: It shows an inexorable closing of the gap between the total industrial output of our nation—a closing in favor of the Soviets.

. . . Our objective American economists who follow Soviet developments look at the trend lines and cannot avoid the conclusion that if present relative rates of growth continue—roughly six per cent for Russia and three per cent for us—some two decades hence Soviet gross industrial output will surpass ours.

I might point out that actually over the last year our economy has not grown at all—it has in fact moved backwards.

A projection of the present trends also shows our defense expenditures, relative to those of the Soviet Union, becoming smaller and smaller each year. It shows that, within the next decade, a continuation of current trends will give Moscow a commanding and decisive military lead over the United States.

This is strong medicine, I know.

Yet nothing whatsoever guarantees that we can keep indefinitely the pre-eminent position in world affairs which has been ours in the first half of this century. All history is the story of great nations which had their day and ceased to be. The laws of historical growth and decline are still operating. World leadership is not an automatic American right. We will earn it, or we will lose it.

Today, we risk losing it.

Irons in the Fire

Tanker Helmet

Army tankers are going to have a helmet made out of the same stuff as the armored vests that proved so effective in Korea. Made of laminated nylon fabric, the new helmet was developed by the Quartermaster Corps with assists by Ordnance Corps, Signal Corps and Army Medical Service. The helmet weighs about three pounds, including communications equipment. The communications gear, mounted outside the helmet, consists of a microphone on an adjustable boom, a switch box with a three-way switch for broadcast, receive and intercom; and a cable with an emergency quick-disconnect plug. Inside the helmet are snug-fitting, padded earphones.

Tanker testing new nylon helmet

New Cessna 175

A new addition to the Cessna 1958 line of executive aircraft is the four-place, single-engine, all-metal Model 175, with a 175-hp "power-geared" engine. The 175 incorporates several features originally developed for airliners. Reduction gears allow a prop speed of 2,400 rpm at an engine top speed of 3,200 rpm, giving increased engine efficiency and reducing the noise level. A new "floating" system of cowl suspension further adds to smoothness and quietness of operation.

Cessna Model 175

Lacrosse missile on a new lightweight launcher

Improving Lacrosse

The battlefield effectiveness of the Army's Lacrosse surface-to-surface missile will be greatly increased by new launching and control systems under development by Cornell Aeronautical Laboratory, Inc. A lightweight launcher, designed specifically for helicopter transport, will add to the missile's mobility. An airborne control system, making it possible to guide the Lacrosse from aircraft above the battlefield, will increase the possibilities of target detection by the control operator. In the present system the missile is guided, after launching, by a forward observer on the ground.

Effective Counter for BW

A search for countermeasures against biological warfare has led scientists of the Army Chemical Corps Biological Laboratories at Fort Detrick, Md., to develop a new method of disinfection and sterilization. It is a gas called betapropiolactone, a compound which previously has been used for disinfection only in liquid form. The gas has sterilized effectively whole buildings, as well as such varied and difficult items as electronic equipment, delicate analytical balances, and an Army truck. It was recently used for overnight sterilization of the cabin of an airliner contaminated by a leaky shipment of live polio virus.

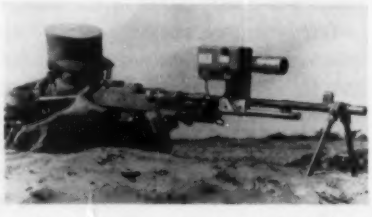
High Window

Fifty miles above the earth's surface, silent winds course through the upper atmosphere. Reaching speeds up to 200 miles per hour, these winds strongly influence the course of ICBMs. To plot these winds and gauge their velocity, the Army uses small Loki II rockets laden with a confetti-like aluminum chaff, very similar to the metallic foil "window" used to jam radars during World War II. The chaff is released at a predetermined altitude and, swept along by the wind currents, is tracked by radar, giving a fast and accurate wind profile. This method has provided continuous measurements from the maximum altitude of Loki II, some 54 miles, to less than 100,000 feet.

Signal Corps scientist displays chaff-laden Loki

Ground Gunsight Camera

The Combat Development Experimentation Center, Fort Ord, Cal., recently held tests to determine aircraft vulnerability to small-arms fire. To record data accurately the tests made use of aircraft gunsight cameras with telephoto lenses and rapid-sequence mechanisms mounted on the pieces fired. These cameras were developed by Gordon Enterprises, North Hollywood, Cal., whose specialty is special-purpose cameras for the armed forces.



Gunsight camera mounted on a BAR

This "rolling fluid transporter" utilizing extremely low-pressure, "airbag" type, treaded-tire containers, each with a 500-gallon capacity, mounted in pairs and towed in multiples, can carry fuel or other bulk liquids over rough off-road terrain inaccessible to conventional tank trucks. It was developed for the Army Transportation Corps by the Four Wheel Drive Auto Company and the Goodyear Tire and Rubber Co.

Poleless Tent

The Air-Strut Tent, shaped like a quonset hut and supported by inflatable rubber arches instead of poles, is being marketed by R. A. Humphreys' Sons, Inc., of Philadelphia.

The tent, made of fire-water-mildew-resistant drill, has a sewn-in floor, screened windows and a screened door. Heavy-duty rubber tubes are sewn into nylon sleeves at intervals along the arched ceiling and sides. When inflated to a pressure of about fifteen pounds, the tubes form a series of rigid arches parallel to the front and rear of the tent. The Air-Strut comes with a heavy-duty pump, guy lines, metal tent pegs, and a canvas carrying bag. Four sizes are available from 7 feet by 7 feet, to 10 feet by 14 feet.

Air-supported tent needs no poles

Flying Mule

Another use has been found for the Army's multi-purpose Mechanical Mule. Most experiments at airlifting the Mule under a helicopter have used a pallet to which the Mule was tightly lashed. At the Army Combat Development Experimentation Center, however, an experimental team has found that the Mule can be airlifted by itself, and may even serve as a self-propelled pallet for the delivery of supplies on the battlefield. A single man is able to load the Mule, lash the load and attach the hooks to the ground handles. At the point of delivery, one man again can unhook and drive the Mule off to its destination.

The Mechanical Mule as a mobile airlift pallet

British Army's Harrier

The British Army has completed trials on the experimental model of a new jeep-type folding vehicle, the Harrier. A 700-pound four-seater, powered by a rear-mounted two-cylinder engine, the Harrier folds into a neat 9-foot-long box which can be dropped singly or in multiples by parachute. The folding vehicle can be handled easily without tackle by its four-man crew and can be unfolded by them in one minute. Its maximum speed is 60 mph, and with three of its four seats stowed away, it has a cargo capacity of up to 560 pounds. The trials proved the Harrier suitable for stretcher-carrying and for radio and command-car duties. It may also be used as a mortar or Bren-gun carrier.

The Harrier, British folding jeep

Space Sentry Tracks Explorer

The Space Sentry, a giant new radio transmitter of the Army Signal Corps, bounced signals off the moon to insure close tracking of Explorer. The signals were used to calibrate the Minitrack listening posts and the sets of cooperating amateur radio operators in the Western Hemisphere and on the west coast of Africa and make sure that they would all be tuned to precisely the same frequency. In addition the tests were used to check the internal computing systems of the Minitrack stations. The Space Sentry, with its 50-foot, dish-shaped antenna, was built at Fort Monmouth by the Signal Research & Development Laboratory.

SD-2 Drone Model

Models of the new SD-2 remote-controlled all-weather surveillance drone are scheduled for flight and evaluation tests at Fort Huachuca, Ariz., in July. Designed and developed by the Rheem Mfg. Co., the SD-2 is zero-length launched from a launching vehicle, using rocket assist and needing no airfield.

THE MONTH'S BOOKS

DOD Organization

FORGING A NEW SWORD: A Study of the Department of Defense
By Col. William R. Kintner, with Col. Joseph I. Coffey and Raymond J. Albright
Harper & Brothers, 1958
238 Pages; Illustrated; $4.50

Reviewed by

LT. COMDR. ALBERT P. INGRAHAM, *USNR, who as an associate with Booz, Allen & Hamilton, management consultants of Washington, D. C., has worked on many management studies at top levels of the defense departments.*

This book was published at an appropriate time, when Congress began consideration of the President's proposals for Defense Department reorganization. Colonel Kintner and his associates advocate recommendations similar to those of the President and the Rockefeller Commission.

In my opinion, the outstanding value of this book is its depth of analysis of national defense organization in relation to the job to be done: defense of the United States against any foreign enemy. This analysis of the strengths and deficiencies of the present national defense organization comprises about a hundred pages of fact-packed but difficult reading. The authors delve into an extremely complex problem of governmental and military organization. The end result is a commendable and convincing argument on the need for fundamental overhaul of national defense organization. The present national defense structure is appraised in terms of ten criteria: civilian control; national policy formulation and planning; readiness; strategic doctrine; weapons systems innovations; flexible adjustment in missions; maximum cost efficiency; and motivation and morale. The resulting evaluation shows a practical and searching knowledge of how the Pentagon operates and fails to operate. More important, the authors have ably documented their comments from official studies and recent events as well as their own experience in interviewing Pentagon officials.

This book, I think, performs another major purpose in digging into many of the shibboleths, easily tossed about but frequently misunderstood, such as "civilian control," "planning," and "financial management." The analysis of how—in the name of "civilian control" over the military—we have in effect forsaken that concept is outstanding. Instead of providing the organization and operating control over the military establishment which would make civilian control possible we have substituted for them a pedestrian civilian meddling in administrative minutiae and logistical activities. The layers of civilian staff in the Pentagon have grown out of a grossly false notion that organizing a vast military enterprise around alleged differences between "civilian" work and "military" work creates civilian control. The authors go on to point out that this misdirection of civilian effort may in fact have contributed to the loss of civilian control.

With respect to military planning and policy formulation, the authors aptly describe the failure of the present planning machinery to produce for Presidential and Secretarial levels genuine strategy alternatives in order that department heads can carry out their political responsibility for final determinations on national strategy and resource utilization.

The subject of money management is disposed of effectively with the idea that a simple transfer of business financial controls to a military organization will accomplish cost control. Effective budgeting of military activity hinges on relating control to meaningful military programs based on missions, such as continental air defense. Program-type budgeting is recognized as another primary reform which must accompany structural reorganization if it is to be effective.

Many other parts of this valuable little book deserve commendations which space does not permit summarizing here. For example, Part I contains an excellent history of the evolution of the Defense Department organization. In the concluding chapters the authors properly emphasize the vital stake of the American people in effective organization of their military defense. The people, through their President and Congress, must take final action in accordance with the realities of today's technology and international politics. An issue of this magnitude cannot be resolved solely on the basis of specialized military professional considerations and traditions.

In summary, this is an excellent book on a subject of momentous importance. It is not a popular one, but it will be an invaluable source of factual background and effective logical analysis for policymakers in the Executive Branch and in Congress and for leaders of public opinion as the defense reorganization debate proceeds. It will be and should be quoted frequently in the coming months and probably for years.

16-Year Forecast

WAR—1974
By Lt. Col. Robert B. Rigg
Military Service Publishing Company, 1958
304 Pages; Illustrated; $5.00

Reviewed by

COL. GEORGE C. REINHARDT, *USA, retired, co-author of* Atomic Weapons in Land Combat *(1954), now on the staff of RAND Corporation.*

Authors who predict the course of future wars, describing their weapons and tactics, usually resort to the entertaining, quickly forgotten science-fiction mold, in which the artistry of a Jules Verne is rare. But there have been occasional devoted souls whose purpose is neither entertainment nor art. These authors—the Homer Leas, the Bernhardis, the Hector Bywaters—were voicing a warning with evangelical fervor. The "future" they foretell is so close that its ominous shadows disturb the reader. Their books, however interesting, are anything but entertaining.

War—1974 is unique, even among this relatively scarce company. Its sixteen-year forecast permits Colonel Rigg extrapolations along the graphs of scientific progress that would have taxed Jules Verne's imagination. Yet the foreword denies both science fiction and casual fancy, claiming "an indication of a military technique to come . . . based on actual . . . developments."

Making good such a claim thirty years ago for Bywater's *The Great Pacific War* (projected a bare ten years from publication) was not difficult for a diligent student of military matters. Changes in weapons systems (the term itself had not then been coined) and their resultant impact upon operations and organization were slow, gradual; improvements rather than breakthroughs.

Although lead time for specific weapons grows ever longer (building the *Nautilus* compared to Cushing's "submarine") that applicable to "development [of weapons] possessing potentialities which dictate radical revision of the conduct of tactical operations" (FSR, 1949)

has radically telescoped. Weapons of this shattering potential were listed (again FSR, 1949) as the crossbow (development time, prior to large-scale use in war, 400 years), firearms (200 years), the airplane (12 years). Recently we had the example of the atomic bomb produced from an idea in five years, the thermonuclear weapon in less than that. Measured by today's technological pace, Colonel Rigg's sixteen years loom as a scientific eon compared to Bywater's decade.

Rigg seems aware of the hugeness of his self-imposed task. The chapter "Hard Facts Breed Future Fantasy" provides the bulk of his documented, technological argument. (But not all of it. Many telling points are neatly sandwiched into the "narrative." "A few determined Americans examined amphibious techniques after 1920. They did more than believe in a future technique, they created one.") The encyclopedic forty pages, almost one-sixth of the volume, strive mightily to demolish the second noun in chapter 17's title. Beginning with sections on nuclear-powered aircraft, anti-ICBM missiles, VTOL aircraft and super helicopters, the "Hard Facts" look into the future of small arms, camouflage, communications, flying tanks, missile delivery of supplies. Even the combat load of the soldier is thoughtfully examined. No brief review can appraise that chapter. A mere listing of its coverage smacks of unintended sarcasm. Quotations highlight specific points to the detriment of the balanced whole. It should be read in entirety.

This reviewer, for one, deplores the decision to start the chapter on page 210 instead of page 1. Only such an introduction could prepare readers for the account of intercontinental war that otherwise has all the flavor of science fiction to a nontechnical audience. That is not to say that any weapons expert will agree with *all* of Rigg's extrapolations even when he has pored over the supporting data. It would, however, be an excellent wager that each one will agree with *some* of them.

As actually presented, *War—1974* almost founders on the first reef. According to page 1, "the world bristled with intercontinental missiles, deep underground bases, hundreds of man-made satellites." Yet the long-feared Soviet surprise attack on continental USA, at midnight, 31 December 1973, consisted of *four* thermonuclear missiles aimed at as many cities. (Three missed!) "By dawn the population centers of America were ghost cities inhabited only by stray dogs, cats and a few drunks. America was now essentially a nation living in automobiles as the population spread out. . . ."

The next morning the President announced that "Congress has voted measured retaliation . . . eight giant missiles fired . . . four cities in Red Eurasia . . . are now like craters on the moon . . . four Red missile bases have been struck." Then, "for two days the world stood poised in tension. Suddenly, on January 18 . . ." [unexplained time lapse] a lone enemy missile, aimed at Washington, is intercepted and destroyed "high in space." Thereupon, "the evacuated populations of Red cities demanded moderation in war. Thus the intercontinental conflict moved into different proportion." By April, cities were re-occupied. "Factory chimneys smoked again."

Readers even mildly addicted to *Alice in Wonderland* will stop there, or sooner, to rejoin the Mad Hatter's Tea Party unless they have peeked at the thirty-eight pages of illustrations (predominantly intriguing drawings by the author) at the back of the book. These rival John Tenniel's sketches of the Jabberwock and the "slithy toves."

Happily, chapter 2's ringside seat on the opening blows of "the 3-D or Sanitized War, no one called it World War Three" would quicken the pulse of a Miltown addict. The mob scenes of countless strange battlefields are handled with skill. Significant details are blended into a vast, weird panorama better than many a high-priced 3-D movie. Footnotes beneath the narrative keep touch with reality, citing current scientific attainments in the field under extrapolation, teasing the reader to turn to chapter 17 but, regrettably, not bluntly telling him to do so.

A synopsis of the war's short campaigns is deceptively simple. In three days a U. S. hit-and-run vertical envelopment (*sans* parachutists) destroys the majority of Red missile bases while Europe is overrun. ("The U. S. had chosen to keep its missile launching sites mobile and moving.") An eight-day land-air blitz, supplied by logistic missiles, spearheaded by Warhead Warriors (troops transported in missiles), raids Europe from "3-D naval carriers." After smashing Red military power west of Poland it VTOL-evacuates to the carriers.

One month later "the Allies" (U. S. plus vague auxiliaries) seize Iran and plunge "straight for the [desert] heart of Asia" where "many super-secret Red ICBM bases remain." This time the battle is prolonged [three months] until, mission accomplished, the Allies retire, by air and sea, the "end [of the war] in sight because in Red Eurasia millions of people were in foment."

The array of strange weapons provides the narrative's most vivid characters. Identifiable human actors, the "slim general," "purple-hearted war correspondent," heroic Private Murphy (permitted the book's one small bit of humor) never come to life.

War—1974 doesn't entertain. It isn't art. But Department of Defense R&D people might use it for a classified, true-false quiz, scoring answers on at least three counts for each of Colonel Rigg's numerous "extrapolations": Possible? Militarily useful? Can be operational in ten years?

Why not try it yourself?

Strategic Decisions in WWII

STRATEGY AND COMPROMISE
By Rear Admiral Samuel Eliot Morison
Little, Brown & Company, 1958
120 Pages; $3.00

Reviewed by

FORREST C. POGUE, *author of the Army's official* The Supreme Command, *and Director of the Research Center, George C. Marshall Research Foundation.*

Last spring, in two lectures at Oxford University, Admiral Morison effectively set forth the American contributions to strategy in World War II. In this small book, he has expanded the substance of those lectures into a general summary of the chief strategic decisions of the war. While one of the major points is a sharp attack on what he calls Sir Arthur Bryant's simple explanation that the strategy of the war "all issued from the massive brain of Field Marshal Sir Alan Brooke," he gives proper credit to the British for their contributions.

The book contains a number of provocative generalizations which are sure to arouse advocates of differing views. A few statements, introduced in the earliest pages, will serve as examples. Admiral Morison warns those who criticize strategic decisions of their tendency to assume that if we had done something different, the enemy's action would have remained the same, instead of changing to counteract our shift in strategy. Those who defend our wartime policy toward the USSR are reminded that our views were based on two assumptions, now proved false, to the effect that (1) Stalin would make peace with Germany unless we made political concessions to him; and (2) that the USSR would remain a dependable ally after the war if we treated her honorably and generously during the conflict. Army planners of the North Africa operation are told that "the British and United States Navy concept was undoubtedly better than the American Army concept of dividing the landings between Casablanca, Oran and Algiers." In a concession, which is really a criticism, he says, "I will freely admit that the isolationist policy of the United States between the two world wars was a grave mistake." Lest the isolationists be mistaken as to his views, he adds elsewhere that "one of the curious traits of the American isolationist is that his fancied island has only one coast, on the Atlantic; a trans-Pacific war seems to have no terrors for him."

Sometimes the author's statements are oversimplified to the point where he may mislead insufficiently informed readers.

Selected Check List of the Month's Books

This run-down of some of the books received for review during the month preceding our deadline is to give our readers who like to follow current literature a monthly check list of the most important, useful and potentially popular books. Full reviews of some of these books may appear in this or subsequent issues. Any of these titles may be purchased through the Combat Forces Book Service.

CAN WE MEET THE RUSSIANS HALFWAY? Edited by Chalmers M. Roberts. Doubleday & Company, 1958. 96 Pages; $1.50. In the words of Eisenhower, Khrushchev, Dulles, Kennan, Churchill, Nixon, Hammarskjold, Adenauer, Stevenson, Lippmann and others.

THE ENCYCLOPAEDIA OF RADIO AND TELEVISION. 2d edition. Philosophical Library, 1958. 736 Pages; Illustrated; $12.00. A complete reference to all aspects of radio fundamentals, transmitting and receiving theory and practice including broadcasting; television techniques, radar, communications systems, components, measuring instruments, electrical machinery and power supply, along with a number of abacs, formulas with worked examples, and other data.

FIRE ON THE BEACHES. By Theodore Taylor. W. W. Norton & Company, 1958. 248 Pages; Illustrated; Index; $3.95. The dramatic story of the struggle between our merchant marine and the U-boats in 1942, with the U. S. in a totally unprepared condition. The author served in the merchant marine and in the Navy.

HISTORY OF THE BYZANTINE STATE. By George Ostrogorsky. Rutgers University Press, 1958. 548 Pages; Illustrated; Maps; Index; $12.50. An established classic, now published for the first time in an American edition. Scholars have labeled this "the best one-volume history of the Byzantine Empire."

INSIDE RUSSIA TODAY. By John Gunther. Harper & Brothers, 1958. 550 Pages; $5.95. An up-dated issue that shows what the USSR really is, with all its puzzles and complexities. Reviews the Soviet empire geographically and historically, as well as in political, industrial, scientific, military, and human terms.

LEADER ATTITUDES AND GROUP EFFECTIVENESS. By Fred E. Fiedler. University of Illinois Press, 1958. 69 Pages; Illustrated; $1.75. A monograph which summarizes the research of the project, "Social Perception and Group Effectiveness," begun in September 1951. It is the final report of the Office of Naval Research.

LONELY COMMAND. The Epic Story of the Emden. By A. A. Hoehling. Thomas Yoseloff, Inc., 1958. 191 Pages; Illustrated; Index; $3.95. An exciting account of epic exploits of the German raider *Emden*, which during WWI was the terror of the Indian Ocean, destroying in the first three months a hundred thousand tons of Allied shipping. Sixteen capital ships searched for *Emden* until she was destroyed by the Australian cruiser *Sydney*.

POLITICAL HANDBOOK OF THE WORLD. Parliaments, Parties and Press as of 1 January 1958. Edited by Walter H. Mallory. Harper & Brothers, 1958. 229 Pages; $3.95. Essential political information on every country in the world: composition of governments, programs of political parties and their leaders, political affiliations and editors of periodicals; organization, functions and personnel of UN and associated international agencies.

PROSPERITY THROUGH COMPETITION: The Economics of the German Miracle. By Ludwig Erhard. Frederick A. Praeger, Inc., 1958. 263 Pages; Illustrated; $5.00. A success story of economic theories that are paying off in practice, of a new kind of free enterprise strongly alive to social responsibilities. By the creator of "the German miracle," who is Vice Chancellor and Minister for Economic Affairs of West Germany.

THE SATURDAY EVENING POST STORIES, 1957. Random House, 1958. 314 Pages; $3.50. Twenty of the best stories—two of them novelettes—from SEP, chosen by its editors.

THE SEA WOLVES. By Wolfgang Frank. Ballantine Books, 1958. 224 Pages; Illustrated; $.50. The complete story of the German submarines in WWII. An appendix gives types and details of U-boats used.

For example, in stating that American higher strategy made two major errors after World War I by demanding the termination of the Anglo-Japanese alliance and by confronting Japan with the 5:5:3 naval formula, he not only implies that the United States alone was responsible for these actions, but may leave the impression that such factors as excessive Japanese nationalism, fed by successful conquests since 1894-95, the U. S. immigration act of 1924, and economic rivalry in the Pacific were important elements in the rise of Japanese militarism.

The Admiral is often conciliatory where one might expect him to be dogmatic. Despite his basic disagreement with the "peripheral" approach, he concludes that "the Anglo-American compromise of concentrating on the Mediterranean in 1942-43 and pulling off the big cross-Channel operation in 1944 was correct." In his discussion of Pacific strategy, he is no special pleader for the Navy's views and he apparently approves the blending of the Nimitz and MacArthur plans for defeating the Japanese who, he declares, wrecked their chances by their failure to consolidate their gains early in 1942. On the decision to drop the atomic bomb, he is content to say that he does not know what course was right and doubts if anyone will ever know.

On other matters he is more positive. The Trieste operation, which Churchill sought as an alternative to the invasion of southern France, he opposes on the grounds that (1) Eisenhower needed the troops scheduled for the French landing for his advance into Germany, and (2) the Ljubljana Gap, through which Trieste forces would have to advance, was "a tactical cul-de-sac." MacArthur, he says, was entirely right in insisting, against Navy opposition, on the return to the Philippines. The State Department and the British Foreign Office, he concludes, were correct in assuring the Japanese that their Emperor could keep his throne.

Despite the limitations imposed by lack of space, *Strategy and Compromise* presents the general reader with a vivid summary of World War II strategic decisions. It provides the student of these complicated matters with a thought-provoking introduction to the bulkier works which are listed in the preface.

Hardware for an Ally

UNITED STATES ARMY IN WORLD WAR II: Rearming the French
By Marcel Vigneras
Chief of Military History, Department of the Army
444 Pages; Illustrated; Maps; Index; $4.25

Reviewed by

MAJ. GEN. HAROLD W. BLAKELEY, *USA, retired, a frequent contributor, who commanded the 4th Infantry Division in ETO.*

One of the major missions of the armed forces of the United States, now and in the foreseeable future, is the arming of our allies. The Army alone currently has more than four thousand officers and enlisted men on duty in forty-four countries. It is also the agency principally responsible for the administration of "mutual aid." Here is a book covering our problems in rearming the French during World War II, a book which both presents an excellent history of a complex subject, and gives considerable guidance for those meeting similar problems today and tomorrow.

The author, French-born and educated in France and America, is now on the staff of the Army's Operations Research Office. He served in the French Army

in both World Wars. This background undoubtedly contributed to the balanced presentation of the two more controversial phases of his subject: first, the conflicting demands of the followers of De Gaulle and of Giraud; and second, the French desire to produce infantry and armored divisions almost to the exclusion of nondivisional combat and service units as opposed to the American thesis that the French should develop a balanced and self-sustaining force.

The De Gaulle-Giraud difficulties go back somewhat to what Dr. Vigneras calls "the tangled threads of internal French politics," but they were more the natural results of a chain of circumstances: "Both men were equally concerned with the restoration of a free, independent France. But they viewed the problem from wholly different experiences, preconceptions, and temperaments." General De Gaulle and his followers felt that they alone had "kept the French flag flying high." Politically, according to Dr. Vigneras, they envisaged the establishment, after liberation, of a new, more progressive French government. General Giraud's associates, on the other hand, were more conservative (Giraud was "a soldier first and foremost"), and on the military side of the question they believed strongly that the recognition by the Anglo-American allies of Giraud as commander in chief in 1942 gave them the right to control the French forces. Here was a complication which seriously affected the mechanics of rearmament. Fortunately, the difficulties were firmly handled at the highest levels, and the actual rearmament operations, supervised during nearly two critical years by Brig. Gen. Harold F. Loomis, USA, were "an unprecedented achievement if one considers the results obtained in relation to the difficulties encountered."

The organization dispute was a bitter one that lasted to the end of the war. The French viewpoint as to army organization was that there were "pressing considerations of a moral, psychological, and political nature, more than military" which demanded that the maximum number of combat units be raised, trained, and committed to action. The less glamorous support and maintenance work could be taken care of by American and British service units. There was something to be said for this theory. The French claimed correctly that they had done much of this sort of work for the American combat troops in World War I and it proved to be true that, in World War II, they could produce divisions which, in the words of General Devers, demonstrated "their outstanding ability in combat." But the weight of argument was against the French, and they gradually worked toward balanced higher units.

The book has interesting chapters on re-equipping the French navy and air force, and particularly worthwhile discussions of liaison, language, and training problems. One wonders, when he reads of the translation difficulties, with only French and English involved, what must happen in the attempted translations of English into and from the little-known and varied tongues of Asia and Africa.

Some of the author's examples raise the question whether French is the exact language it is often claimed to be. General Giraud in a letter to General Marshall spoke of *"le programme que nous avons arrêté"* meaning, according to Dr. Vigneras, "the program which we have drawn up." The phrase was translated, however, as "the program which we have held up." Any French-English dictionary will indicate that the primary meaning of *arrêter* is "to stop." Way down the list of phrases, if the dictionary is big enough, will be found some indication that *arrêter* sometimes means "to decide" or possibly "to draw up." It may be that French is an exact language to a Frenchman.

Sanitized Gaither Report

SOVIET PROGRESS vs. AMERICAN ENTERPRISE
Confidential Briefing Papers Prepared for the Committee for Economic Development by Experts Including Clarence B. Randall, Special Assistant to the President, Edward L. Allen, Chief of Economic Research for CIA, and others.
Doubleday & Company, 1958
126 Pages; $2.00

Reviewed by
PEREGRINE WHITE, *a contributor to* ARMY, *who is Scientific Information Officer, Office of Ordnance Research.*

Get it and read this slim book which analyzes the Soviet challenge in various fields—economics, science, education. It amounts to a sanitized Gaither Report, based on its contributors. (Like most other citizens I haven't seen the GR itself.) The writers concentrate on defects in our own game. Like the Rockefeller Report, for which it is an excellent chaser, this book is chilling reading.

The challenge goes deeper than military research and development, although military readers will need to buckle their seat-belts through the stern indictment of the military decision-making process voiced by Livingston of Harvard Business School. The contest is on in scientific, economic, industrial competition generally.

Science. Teller to Nixon: a breakthrough in weather control would have infinitely greater effect psychologically than any military development. Wiesner of MIT to the People: a source of real danger to us is some inconceivable development, some new idea, some new scientific insight; and the more fundamental investigations scientists do, the more likely such a discovery is. Donald K. David: behind Sputnik we see a rocket and behind the rocket we see advanced science and technology. However, there is something more behind this. There is a social system of human institutions that, in this case, has made the correct decision about what was important to achieve and has motivated and organized efforts to achieve it.

Note to the complacent: these contributors spoke last November. Currently in this country a recession deepens. The economic talent and sophistication necessary for successful economic foreign ventures is kin to the ditto required to keep our domestic economy sound. Succeeding months will tell whether we have what it takes.

Note to worriers: nowhere is there expressed fear lest what we have to do breed national bankruptcy. Debts are preferable to inundation. We are learning.

This book is not encapsulated hysteria. It is a challenge to top planner, scientist, contract negotiator, industrialist, student, economist, bench worker, journalist. It is the doctor's physical report on the nation. We are all overweight. The book challenges every American: gain awareness; keep your temper; demand action; contribute to expediting the solution wherever you may be. If you require a manifesto, here it is.

War Diary

ENROUTE TO THE REDOUBT: A Soldier's Report as a Regiment Goes to War; Volume I
By Col. Ralph E. Pearson
Privately published, 1958
88 Pages; Illustrated; Maps; $2.00

Reviewed by
LT. COL. ROBERT B. RIGG, *Armor, a frequent contributor to* ARMY, *whose* War—1974 *was recently published.*

A rambling narrative mainly of interest to "those who were there," this text, according to the author, is "an attempt to record something about the people . . . and the men" of the 318th Infantry (80th Division). Later, Colonel Pearson states that his book "is an effort to cover in detail the author's activities from . . . August 1944 to 15 July 1945." Periodically the reader does become a little confused as to the book's purpose.

With the conglomerate characteristics of a diary, this book sets forth jauntily, digresses momentarily into heavily footnoted details of the Nazis at war, and then gets back on its winding trek across Europe. With such occasional—but original—Winchellisms as "divarte" and "criminalrat," *Enroute to the Redoubt* does not pretend to be military history. Rather, it relates a series of daily events in the lives of men in combat—short vignettes of history—drawing upon the author's experiences and embellished with descriptions from published sources.

Despite its unusual organization and lingering diary clichés ("I got up at 0700 . . .") this small volume is not without interest. However, its essential continuity lies in the calendar. Little episodes like the girl spy with codes in her compact, and the tragic death of Colonel Snowden ("We were trying to locate a sniper. The colonel stood erect . . . exposing himself. . . . He said the best way to spot this man was to give him a chance to shoot at someone. . . .") carry the reader into the grim realities of men in combat.

This book makes a contribution to the military history of a combat unit that is deserving of more complete documentation. It is hoped that the author will round out his series of volumes on the 318th. [Volume II will be available soon. THE EDITORS.]

Summed up, Colonel Pearson's book will be of primary interest to those men of the 318th RCT (including the 314th FA) who wrote military history with their deeds in combat.

London's Big Blitz

THE WINTER OF THE BOMBS
By Constantine FitzGibbon
W. W. Norton & Company, 1958
271 Pages; Illustrated; Maps; $3.95

Reviewed by
COL. R. ERNEST DUPUY, *USA, Retired, who headed SHAEF's public relations division in London.*

On 7 September 1940, Hitler's *Luftwaffe* began what was to be a systematic destruction of London. For fifty-seven nights—and most of the days—thereafter, the British capital was blasted by high explosive raining from the sky. For the following six months the *Luftwaffe's* visits, more infrequent, still came heavily.

When it was over, London's sprawling area lay pockmarked by horrible cratering and some twenty thousand Londoners —civilian men, women and children—had died. But London was not dead, nor was Britain.

That was the Blitz—the "Big Blitz." There would be another, the "Little Blitz," in early 1944, preceding the V-1 buzz bombs and the searing V-2s (all witnessed by many Americans, including this reviewer).

But Mr. FitzGibbon concentrates on the Big Blitz. He has presented a remarkably well-written narrative of London's agony. It's a reporting job, linking a well-chosen sampling of eyewitness stories into a coherent and gripping factual account of one of the great dramas of modern history.

He ends on a high note. Londoners were sure in 1940 that their city would be wiped out "just as surely, if more slowly, as we expect in the event of atomic war. But they looked the fear straight in the face and decided that the reality, horrible though it was, was neither so bad as the expectation had been, nor so repulsive as the alternative of surrender to a wicked and cruel enemy must be. Civilian morale did not crack then: there is no reason, despite hysterical publicists and strontium-mongers, to assume it would crack again, even if conditions were far, far worse."

A point well taken, indeed.

Colonial Total War

FLINTLOCK AND TOMAHAWK: New England in King Philip's War
By Douglas Edward Leach
The Macmillan Company, 1958
305 Pages; Illustrated; Maps; Index; $6.00

Reviewed by
COL. JOHN U. AYOTTE, *USA, retired, author of many articles on tactical training and historical subjects, who has written a study of The Great Swamp Fight, a major battle of King Philip's War.*

Two bloodstained and mutilated corpses sprawled across a forest trail near Swansea, Massachusetts, one day in June 1675, and stumbled on by three militia captains from Boston, symbolized the end of a half century of peace between Plymouth Colony and the Wampanoag Indians, whose chief sachem was King Philip. Smoldering hatred, a product of English land-greed and Indian suspicion, had blazed out suddenly in a fury of murder and rapine which was to spread until total war had affected the entire population of the four Colonies of Massachusetts Bay, Plymouth, Rhode Island, and Connecticut. When the last shot had been fired, thousands of Indian warriors, women and children, were dead from bullets, disease and starvation; thousands more had been sold into slavery, and the once powerful tribes of southern New England reduced to an impotent and insignificant remnant. Thousands, too, of the English had perished in battle, ambush and massacre; twenty towns and hundreds of dwellings were in ashes, and much of the Colonial wealth had vanished in the smoke of war.

Several aspects of King Philip's War seem quite pertinent today in our world of racial hatreds and "colonialism," with small wars of extermination flickering and flaming over the earth.

A modern history of this great Indian war was long overdue until Mr. Leach, assistant professor of history at Vanderbilt University, published this book. He blends exhaustive research, extensive terrain study and a shrewd analysis of personalities and events into a scholarly and also very readable book. It begins with a description of New England in 1675, with its population of some forty thousand whites and twenty thousand Indians, most of the area a wilderness of forests and swamps; it continues into a discussion of the habits, living conditions and motivating ideas of the two opposing races, and the reasons behind the eventual life-and-death struggle. Then follows on absorbing narrative of the military operations, illustrated by adequate maps, and finally a summing-up of the immediate and the long-range effects of the devastating war.

Flintlock and Tomahawk is a worthwhile newcomer to the shelves of Colonial history, and deserves to be widely read.

Civil War from the Rear Rank

PRIVATE ELISHA STOCKWELL, JR., SEES THE CIVIL WAR
Byron R. Abernethy, Editor
University of Oklahoma Press, 1958
210 Pages; Illustrated; Index; $3.75

Reviewed by
RALPH W. DONNELLY, *member of the Civil War Round Table and Treasurer of the American Military Institute.*

This is the story of a fifteen-year-old volunteer who served in Company I, 14th Wisconsin Infantry, in the Army of the Tennessee. Written after he reached the age of eighty-one, these memoirs nevertheless convey a freshness and youthful attitude wholly unexpected when related more than sixty years after the events. Certain minor errors in dates, sequence, and places fail to interfere with the narrative, and Stockwell freely acknowledges their possibility after the passage of so long a time. Actually, he is surprisingly accurate, gives considerable detail, and writes in a plain yet interesting style.

Stockwell devotes his narrative to his personal life as a private and studiously ignores the politics of the times. His battle experiences are limited to what he did and saw, preserving the essential simplicity of his story. He shows unconsciously his development from a youthful farm boy into a self-reliant, ingenious veteran capable of taking care of himself by the judicious foraging of edibles. Brought up not to steal or lie, he found it necessary to do both during the war while foraging, excusing such lapses as a necessary part of war justly due the enemy.

Stockwell apparently was partial to fresh pork, and relates several stories concerning the foraging of pigs. His numerous incidents concerning guard and picket duty reflect the frequency of such tasks in the life of a private. His tales of the tobacco-chewing young Southern belle and how he procured apple cider add humor to his narrative.

The editor might have used the *Official Records* to advantage for verifying dates and places, but the omission does not impair the memoir. This book is entertaining reading, and is recommended to Civil War fans as a worthy addition to the narratives of Federal infantrymen.

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REPORT FROM YOUR AUSA CP

The Association held a symposium on battlefield mobility 24-26 March at Fort Benning, Georgia. This was the fourth in a series of classified briefings which are designed to develop a deeper appreciation of the Army's future requirements in various fields for our industrial members. Some four hundred industrial executives and top Army leaders met to discuss plans and problems for mobility on the future battlefield, with particular emphasis on wheeled and tracked vehicles. Secretary of the Army Wilber M. Brucker; General Lyman L. Lemnitzer, Vice Chief of Staff; Lieutenant General E. T. Williams, Deputy Commanding General of CONARC; and Dr. W. H. Martin, Director of Research and Development for the Department of the Army, headed a list of distinguished speakers.

The Planning Committee for the 1958 Annual Meeting is already hard at work. Dates for the meeting are 20, 21 and 22 October and the place is the Sheraton-Park Hotel in Washington, D. C. Mark those dates on your calendar and plan now to attend.

More than two thousand members in good standing are not receiving their copies of ARMY because we don't have their current addresses. Mail addressed to these members, including tracer cards, has been returned marked "Unknown," or "Moved, Left no Forwarding Address." If you know someone who is a member and is not receiving his copy, please ask him to write to the Circulation Manager, giving both his old and new addresses and the issues he has missed. We'll send back copies if available, or extend his membership to make up for the copies he has missed.

When you move, don't forget to let us know thirty days in advance, and please, give us both old and new addresses. If possible, send us the label from a recent copy of ARMY because this speeds up the processing considerably.

A reminder to all members and prospective members: Beginning 1 April 1958, the Association no longer accepts bill-me-later applications for membershp. This change was made to reduce administrative costs so that we can continue to improve ARMY and make more progress toward the attainment of our aims and objectives. Please help us pass the word.

WALTER L WEIBLE
Lt. Gen., USA, Retired
Executive Vice President

AUSA REGIONAL ACTIVITIES

CHAPTERS

ALAMO CHAPTER, San Antonio—Brig. Gen. Daniel A. O'Connor, Assistant Commandant of the Guided Missile School, Fort Bliss, spoke to dinner meeting 27 March on "The Army's Guided Missile Program." Attendance was 225; officers elected for coming year.

ALASKA SOUTHERN CHAPTER—Organizational meeting held at Fort Richardson Noncommissioned Officers Open Mess 21 February.

BRAXTON BRAGG CHAPTER, Fort Bragg—Meeting 19 March began organization of Speakers' Bureau; heard Brig. Gen. Charles H. Chase, CG, XVIII Airborne Corps and Fort Bragg, speak on purposes of AUSA; and made plans for Charter presentation ceremony 12 May.

CENTRAL TEXAS-FORT HOOD CHAPTER—Meeting 30 January marked turnover of Chapter from the military personnel who organized it to civilian officers elected to replace them. Maj. Gen. Harry McK. Roper, member of national Council of Trustees, was principal speaker.

EAST BAY CHAPTER, Oakland, Calif.—Chapter publication, *Periodic Report,* is one of the most informative of its kind. Meeting 4 March planned for Armed Forces Day, and award of AUSA ROTC medals to University of California cadets as representative of national AUSA.

FORT HOOD, TEXAS. Newly elected officers of Central Texas-Fort Hood Chapter. Left to right: George Cates, Secretary; William Bigham, First Vice President; H. Roy Reynolds, President; Brig. Gen. John A. Berry, Past President; J. C. Gresham, Second Vice President; Major G. M. Wilde, USA, retired, Treasurer.

FORT BROOKE, P. R. Officers of Antilles Chapter installed during its February meeting, left to right: Lt. Col. Frederick E. Dieterle, USAR, First Vice President; Col. Andres Lopez Antongiorgi, USA, retired, President; Colonel Rene Lopez Duprey, PRNG, Second Vice President; Capt. Jack A. Ramey, Secretary.

8th INFANTRY DIVISION CHAPTER—Maj. Gen. Philip F. Lindeman, CG, 8th Infantry Division and former member of Executive Council, AUSA, addressed 4 March meeting on the place of the AUSA as the Army's unofficial voice. Brig. Gen. William F. Train, ADC, spoke on issues facing the Army, and AUSA's program of action. Chapter adopted three goals at suggestion of Col. Elmer Schmierer: 1,500 members, a dinner meeting each quarter to be held in different portions of the division area, and the use of a strong awards program to further Army goals and missions.

HEADQUARTERS SEVENTH U. S. ARMY CHAPTER—"East-West Issue in Berlin" was subject of address by Mr. William L. Franklin, Chief, Public Safety Division, Berlin Command, to Chapter 28 February. Buffet dinner followed the formal meeting; 40 new members were greeted during the buffet. Guests included Lt. Gen. Bruce C. Clarke (Honorary President), Maj. Gen. Gordon Rogers, Brig. Gen. Roland del Mar (who organized Fort Hood Chapter), and Brig. Gen. Harold K. Johnson. Entertainment was by PFC G. M. Wertz, vocalist, acompanied by PFC Fred Bodine.

MARNE CHAPTER, 3d Infantry Division—Charter presented by Gen. Charles L. Bolté, Trustee of the National Association, at ceremony 26 March at Fort Benning. Officers of the Columbus-Phenix City-Fort Benning Chapter attended the ceremony, as did Maj. Gen. H. B. Powell and officials of surrounding communities. Marne Chapter is en route to Germany. The Chapter's by-laws include a provision to suspend the charter when the Division returns to a post in CONUS where there is an area chapter.

NEW ORLEANS CHAPTER—Maj. Gen. Haydon L. Boatner, Provost Marshal General, U. S. Army, spoke to the Chapter, augmented by members of the Louisiana Manufacturers' Association and the general public, on: "The Industrial Defense Program—Its Dividend to the Community."

OKLAHOMA CITY CHAPTER—Charter presented by Maj. Gen. William S. Key at dinner meeting 21 March. Guest speaker was Maj. Gen. William S. Biddle, CG, III Corps, Fort Hood, Texas.

OZARK CHAPTER, Fort Chaffee—Lt. Gen. Walter L. Weible, Executive Vice President, AUSA, presented the Chapter's charter at a banquet 28 February. Brig. Gen. Ralph H. Mace, post commander, accepted the charter.

POLK CHAPTER, Fort Polk—Meeting 17 February heard Brig. Gen. John A. Berry, III Corps, Fort Hood, give illustrated presentation on guided missiles.

SOUTH HAMPTON ROADS CHAPTER, Portsmouth, Va.—Organization meeting held 4 March under sponsorship of Third Air Defense Artillery Group, Col. Minot B. Dodson, commanding.

SOUTHEAST ALABAMA CHAPTER—Chapter conducted tour of Fort Rucker for more than 60 local businessmen, with special reference to post exchange facilities and housing areas. Group was airlifted by helicopter from Dothan to the post.

3d ARMORED DIVISION CHAPTER—Maj. Gen. Thomas F. Van Natta, Division CG, addressed meeting on 12 March, stressing that overseas chapters can do little toward implementation of Association objectives, but pointing out that the personnel leaving the Division at the expiration of their term of service can be indoctrinated to follow the Association's aims when they return to civilian communities. General Van Natta stressed also the importance of ARMY magazine to the serving soldier.

TOPEKA CHAPTER—Hon. Frank H. Higgins, Assistant Secretary of the Army for Logistics, addressed charter meeting of Topeka Chapter 12 March, and presented the charter to Mr. Harry W. Colmery, Chapter President and Civilian Aide to the Secretary of the Army. Mr. Higgins, while stressing business aspects of the Army, pointed out that national defense is a matter of survival and that the cost of the military establishment is cheap compared to the cost if USSR should win world domination.

NEW ORLEANS, LA. Part of the head table at New Orleans Chapter's luncheon meeting at the Roosevelt Hotel, 6 February. Left to right: Sam Dunbar, President of Louisiana Manufacturers Association; Maj. Gen. Norman H. Vissering, CG, Transportation Terminal Command, Gulf; Maj. Gen. Haydon L. Boatner, Provost Marshal General, guest speaker; Wallace M. Davis, President of Chapter.

FORT SAM HOUSTON, TEXAS. Speakers' table at Alamo Chapter's first dinner meeting at the Officers' Open Mess on 25 March. Left to right: Col. John W. Beretta, USAR, Third Vice President; Lt. Gen. John H. Collier, CG, Fourth Army; Brig. Gen. Daniel A. O'Conner, Assistant Commandant, Air Defense School, who was guest speaker; Lt. Col. Reagan Houston, III, USAR, President.

NORFOLK, VA. Installation of officers at organization meeting of South Hampton Roads Chapter on 4 March. Left to right: O. Stanley Hoffler, Treasurer; Ralph L. Horn, President; Col. Minot B. Dodson, CO, 3d Air Defense Artillery Group and host; Col. Conan W. Vaughan, Jr., USAR, Second Vice President; Richard A. Atkinson, First Vice President.

FORT CHAFFEE, ARK. Lt. Gen. Walter L. Weible, Executive Vice President of AUSA, addresses Ozark Chapter at its charter ceremony on 28 February. At the speakers' table are, left to right: Hon. Jack Pace, Mayor of Fort Smith, Ark.; Col. F. G. Stritzinger, IV, Fort Chaffee chief of staff; Chaplain Wilkinson S. Alsworth, also of Fort Chaffee.

VAIHINGEN, GERMANY. Col. John S. Blair, III, directs SFC Robert C. Gilmour in signing up Major Earl F. Simpson as a member of Headquarters, Seventh U. S. Army Chapter.

OKLAHOMA CITY, OKLA. Highlight of a recent dinner meeting of Oklahoma City Chapter was presentation of the charter, by Maj. Gen. William S. Key (second from left). Others are, left to right: Brig. Gen. Paul B. Bell, First Vice President; Col. Charles E. Tompkins, President; Lt. Ruth Ann Love, Secretary; Col. John Long, USA, retired, Second Vice President; Col. L. M. Tidd, USA, retired, Treasurer.

CLEVELAND, OHIO. Scene at the first membership banquet of John Carroll University Company, held at Owen's Plantation in Cleveland.

BLACKSBURG, VA. Part of the group which attended chartering ceremonies on 27 February at Virginia Polytechnic Institute Company.

ROTC COMPANIES

EDMUND R. WALKER COMPANY, University of Connecticut—March meeting elected new officers; heard lecture by Sergeant Feuerman on the role of the rifleman at Pork Chop Hill.

IDAHO STATE COLLEGE COMPANY—Company arranged for showing of film "The Pentomic Army" to students and faculty of the College.

ILLINI COMPANY, University of Illinois—Major Hetzel addressed 19 March meeting on Viet Nam.

INDIANA STATE TEACHERS COLLEGE ROTC COMPANY, Pennsylvania—Film, "Summer Military Training in Russia," was feature of 19 March meeting.

JOHN CARROLL UNIVERSITY COMPANY—Forty-three members traveled to New Orleans to inspect the Gulf Transportation Terminal Command.

LT. CHARLES J. FITE COMPANY, Gettysburg College—Chartering ceremony 5 March. Maj. Gen. Max Johnson, Commandant of AWC, presented the charter and gave a short talk on the aims of the Association. Brig. Gen. E. C. Doleman, Deputy Commandant, was the featured speaker; his subject covered the preparation necessary for an officer to meet his responsibilities and the importance of a combat-ready Army.

MONTANA STATE UNIVERSITY ARMY ROTC COMPANY—MSgt Richard B. Merrill discussed duty overseas at meeting 4 March.

PENNSYLVANIA STATE UNIVERSITY COMPANY—Lt. Col. Pelton presented illustrated lecture on duty in Viet Nam at meeting 25 March. Meeting 11 March featured program on missile development, including films, presented by Dr. George U. Oppel, rocket scientist and member of the University's Engineering Mechanics Department.

ROBERT E. SYLVEST COMPANY, Northwestern State College of Louisiana—Meeting 20 March elected new officers.

SIOUX COMPANY, University of North Dakota—Mr. Ralph H. Kolstoe, Assistant Professor of Psychology, addressed 20 March meeting on "Army Psychology."

SOONER COMPANY, University of Oklahoma—Col. Charles C. Bush, Jr. addressed 12 March meeting on the subject of "The Need for the Army in the United States Today."

ST. NORBERT COLLEGE COMPANY—Lt. Donald Schneider, recent graduate of St. Norbert, spoke to meeting 24 February on his experiences as a student at The Artillery School, and conducted a question-and-answer period for members with questions about active duty.

V. RAYMOND EDMAN COMPANY, Wheaton College—Lt. Col. Hubler spoke to meeting on 26 February on the Aggressor training concept, and showed the official film on Aggressor forces.

VIRGINIA POLYTECHNIC INSTITUTE COMPANY—Col. R. Ernest Dupuy, author and military public information expert, was the principal speaker at the VPI Company chartering ceremony 27 February. Colonel Dupuy spoke on the purposes of AUSA, and on the military service in general. After his formal talk, the speaker conducted an informal discussion with Company members on the leadership qualities of the generals of the Civil War.

WASHINGTON AND JEFFERSON ROTC COMPANY—Chartering ceremony 25 February took place in Hotel Auld, Washington, Penn. Lt. Col. Robert B. Campbell spoke on the aims and purposes of AUSA; Col. William S. Yard discussed the war crime trials after World War II.

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AUSA's OBJECTIVES FOR 1958

1. *An active Army of one million men as advocated by the Secretary of the Army and the Chief of Staff before a Subcommittee of the Committee on Appropriations of the House of Representatives on 5 February 1957.*
2. *A four-division, full strength highly mobile striking force within the Strategic Reserve.*
3. *Procurement of sufficient long-range airlift to move immediately and to support thereafter two divisions of this striking force under a guaranteed priority for Army use.*
4. *Recognition of the vital importance of the Army National Guard and Army Reserve in the structure of our national defense.*
5. *Establishment of provisions to protect active and reserve personnel against arbitrary force-out and other breaking of faith with their unwritten service contracts subject only to faithful and competent service.*
6. *Upward revision of the weight and range limitations on Army aircraft and missiles.*
7. *Fuller use of the Army's proven capabilities in Air Defense.*
8. *Passage of proposed legislation implementing the recommendations in the Cordiner Report.*
9. *Maintenance of the separate identity of the services and insurance that all shall have parity of expression of their views in the highest executive and legislative councils of the Federal Government.*

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